XR-5150/5151/5152

SERVICE MANUAL

AEP Model
XR-5150/5151

Germany Model
XR-5152

Photo: XR-5150

Model Name Using Similar Mechanism	NEW
Tape Transport Mechanism Type	MG-707AVF-35

SPECIFICATIONS

Power amplifier section

Outputs — Speaker outputs (sure seal connectors)
Speaker impedance — 4 – 8 ohms
Maximum power output
25 W × 2 (at 4 ohms)*
15 W × 4 (at 4 ohms)*
* Measured at 14.4 V

Cassette player section

Tape track — 4-track 2-channel stereo
Frequency response — 30 – 16,000 Hz
Signal-to-noise ratio

Cassette type	Dolby B	Dolby off
TYPE II, IV	66 dB	58 dB
TYPE I	63 dB	55 dB

Wow and flutter — 0.13% (WRMS)

Tuner section

System — Superheterodyne tuner
Computerized quartz-locked synthesizer system
Antenna terminal — External antenna connector

FM tuner section

Tuning range — 87.5 – 108.0 MHz
Intermediate frequency — 10.7 MHz
Usable sensitivity — 13 dBf (75 ohms)
Selectivity — 75 dB at 400 kHz
Signal-to-noise ratio — 66 dB (stereo), 69 dB (mono)
Harmonic distortion at 1 kHz — 0.9% (stereo), 0.5% (mono)
Separation — 35 dB at 1 kHz
Frequency response — 30 – 15,000 Hz
Capture ratio — 2 dB

AM tuner section (XR-5150/5152)

Tuning range — 531 – 1,602 kHz
Intermediate frequency — 450 kHz
Sensitivity — 35μV

MW/LW tuner section (XR-5151)

Tuning range — MW: 531 – 1,602 kHz
LW: 153 – 281 kHz
Intermediate frequency — 450 kHz
Sensitivity — MW: 35μV
LW: 70μV

— Continued on next page —

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
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FM/AM CASSETTE CAR STEREO
XR-5150/5152

FM/MW/LW CASSETTE CAR STEREO
XR-5151

SONY®

General

Tone controls	Bass ±8 dB at 100 Hz
	Treble ±8 dB at 10 kHz
Loudness	+10 dB at 100 Hz
	+6 dB at 10 kHz
Output lead	Power antenna relay control lead
Power requirements	
	12 V DC car battery (negative ground)
Dimensions	Approx. 178 × 50 × 154 mm (w/h/d) not incl. projecting parts and controls
Mounting dimensions	
	Approx. 182 × 53 × 145 mm (w/h/d) not incl. projecting parts and controls
Weight	Approx. 1.4 kg
Accessories supplied	
	Mounting hardware (1 set)

Design and specifications subject to change without notice.

Note for Lithium Battery

CAUTION

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the equipment manufacturer. Discard used batteries according to manufacturer's instructions.

ADVARSEL !
Lithiumbatteri – Eksplosionsfare ved fejlagtig håndtering.
Udskiftning må kun ske med batteri
af samme fabrikat og type.
Lever det brugte batteri tilbage til leverandøren.

ADVARSEL

Lithiumbatteri – Eksplosjonsfare.
Ved utskifting benyttes kun batteri som
anbefalt av apparatfabrikanten.
Brukt batteri returneres apparatleverandøren.

VARNING

Explosionsfara vid felaktigt batteribyte.
Använd samma batterityp eller en ekvivalent
typ som rekommenderas av apparattillverkaren.
Kassera använt batteri enligt fabrikantens
instruktion.

VAROITUS

Paristo voi räjähtää, jos se on virheellisesti asennettu. Vaihda paristo ainoastaan laitevalmistajan suosittelemaan tyyppiin. Hävitä käytetty paristo valmistajan ohjeiden mukaisesti.

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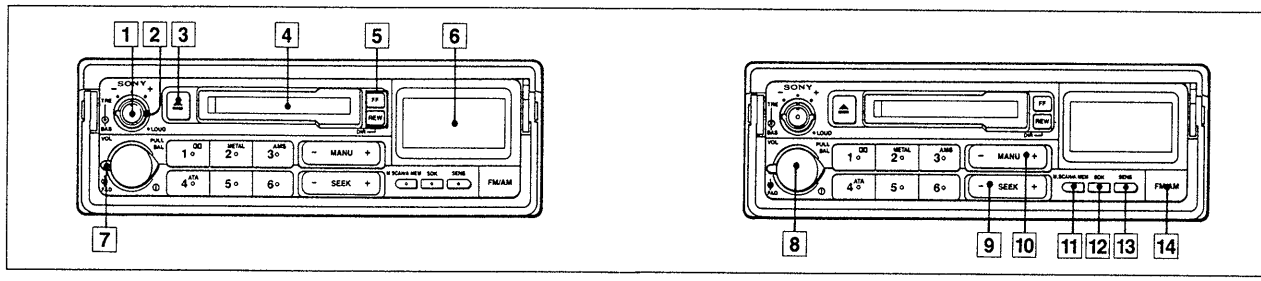
Location and Function of Controls



Refer to the pages in ● for details.

1 LOUD (loudness) button/TRE (treble) control

LOUD button	Press to reinforce bass and treble especially when listening at low level. To disengage the button, press again.
TRE control	Turn clockwise to increase and counterclockwise to decrease the treble.

2 BAS (bass) control
Turn clockwise to increase and counterclockwise to decrease the bass.

3 ⏏ (eject) button
Press to stop tape playback and eject the cassette.

4 Cassette insertion door

5 FF/REW (fast winding) buttons/DIR (tape transport direction change) buttons ❾ Ⓛ
During playback, depress FF or REW for fast winding, or press both FF and REW simultaneously to listen to the other side of the cassette.

6 Display window

7 FAD (fader) control ⓫
Turn clockwise to decrease the volume of the rear speakers or counterclockwise to decrease the volume of the front speakers.

8 Power on • off switch/VOL (volume) control/PULL BAL (balance) control

Power on • off switch	Press to turn on and off the unit.
VOL control	Turn clockwise to increase and counterclockwise to decrease the volume.
PULL BAL control	While pulling the control knob, turn to adjust the balance of the left and right channel outputs.

9 SEEK −/+ button ⓬ ⓯
Press − side to search stations in lower frequencies and + side to search in higher frequencies.

10 MANU (manual) −/+ button ⓭ ⓯
Press to tune in the desired stations manually.

11 M.SCAN (memory scan)/A.MEM (automatic memory) button ⓯

Function	Operation
M.SCAN	Press for a moment to scan the preset stations automatically.
A.MEM	Press for more than two seconds to memorize the stations automatically.

12 SDK (traffic information) button ⓱
Press to activate the traffic information stand-by function (SDK).
(XR-5152)

13 SENS (sensitivity) button ⓭
(XR-5152)

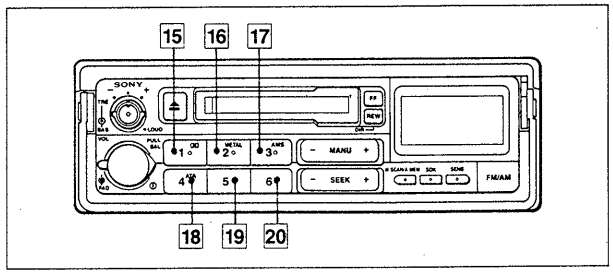
14 FM/AM band select button ⓬ ⓮ ⓰ ⓱
(XR-5150/5152)

12 MONO (monaural) button ⓭
Press to reduce noise during reception of a weak FM stereo program. To listen in stereo, press again.
(XR-5150/5151)

13 LOCAL (local seek) button ⓭
(XR-5150/5151)

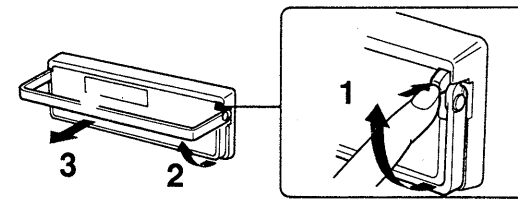
14 FM/MW/LW band select button ⓬ ⓮ ⓰
(XR-5151)

Location and Function of Controls



	During tape playback	During radio operation
15	DD (Dolby NR) button ❽	Preset number buttons ⓯ ⓰
16	METAL button ❽	
17	AMS (Automatic Music Sensor) button ⓾	
18	ATA (Automatic Tuner Activation) button ⓫	
19	—	
20	—	

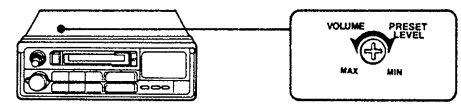
To Remove the Unit



To prevent the unit from being stolen
When you leave your car, remove the unit from the bracket and take it away with you.
Be sure to turn off the power of the unit before removing the unit. Otherwise you may hear a noise.

To Set the Volume Level of the Traffic Information Broadcast

Set the volume level by the volume control at the top of the unit.
When the broadcast starts, it will be heard at this volume level even if the VOL control on the front panel has been turned down.



Set the volume level by using a screw driver.

XR-5152

Installation/Installation/Installation/Installazione

Precautions

- Choose the mounting location carefully so that the unit will not interfere with the normal driving functions of the driver.
- Avoid installing the unit where it should be subject to high temperatures, such as from direct sunlight or from hot air from the heater, or where it would be subjected to dust, dirt or excessive vibration.
- Use only the supplied mounting hardware for a safe and secure installation.

Précautions

- Choisir soigneusement l'emplacement de montage pour que l'appareil n'interfère pas avec les fonctions normales de conduite du véhicule.
- Eviter d'installer l'appareil là où il pourrait être exposé à une haute température telle que celle de la lumière directe du soleil ou provenant d'un appareil de chauffage ou là où il serait exposé à la poussière, à la saleté ou à une vibration excessive.
- Utiliser uniquement le matériel de montage fourni pour effectuer une installation sûre.

Vorsichtsmaßnahmen

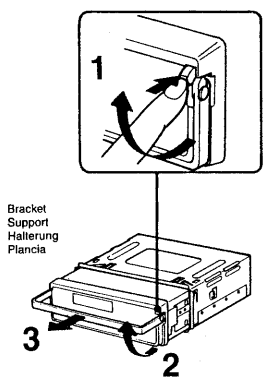
- Wählen Sie den Einbauort sorgfältig so aus, daß das Gerät die Bedienung des Fahrzeugs nicht behindert.
- Achten Sie darauf, daß das Gerät keiner Wärmeeinstrahlung (Sonnenlicht, Warmluft von Heizung), keinem Staub, keinem Schmutz und keinen starken Vibrationen ausgesetzt ist.
- Für eine sichere Befestigung verwenden Sie stets nur die mitgelieferten Montageteile.

Precauzioni

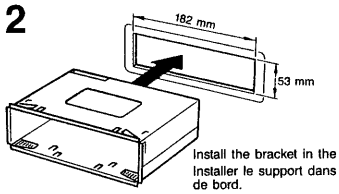
- Scegliere con attenzione il luogo di montaggio in modo che l'apparecchio non interferisca con le normali coperazioni di guida del conducente.
- Evitare di installare l'apparecchio dove possa essere soggetto ad alte temperature, come da esposizione alla luce solare diretta o al getto di aria calda dell'impianto di riscaldamento, o dove possa essere soggetto a polvere, sporco e vibrazioni eccessive.
- Usare solo il materiale di montaggio in dotazione per un'installazione stabile e sicura.

To Install the Unit in the Dashboard
Installation de l'appareil dans le tableau de bord
Installation im Armaturenbrett
Installazione dell'apparecchio nel cruscotto

1



2

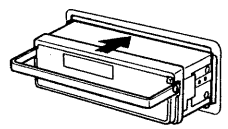


Install the bracket in the dashboard.
Installer le support dans le tableau de bord.
Falls erforderlich, die Klauen hochbiegen.
Installare la plancia nel cruscotto.

Bend these claws, if necessary.
Plier ces pattes si nécessaire.
Die Halterung im Armaturenbrett montieren.
Piegare questi fermi, se necessario.

3

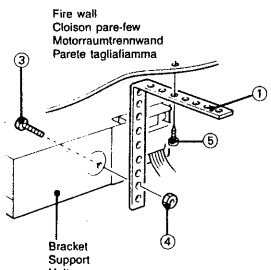
Secure the unit.
Fixer l'appareil
Das Gerät einschieben.
Assicurare l'apparecchio.



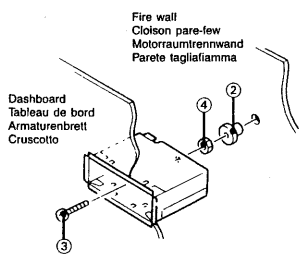
Push in the unit until it is locked firmly.
Pousser l'appareil jusqu'à verrouillage ferme.
Das Gerät ganz einschieben, so daß es einrastet.
Spingere verso l'interno l'apparecchio fino a che si blocca in posizione.

To Support the Unit
Pour supporter l'appareil
Befestigung des Geräts
Per sostenere l'apparecchio

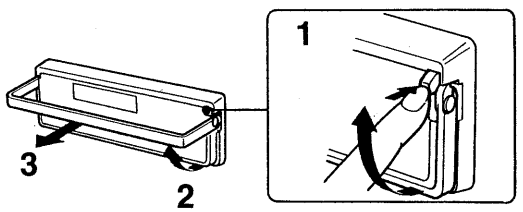
Example 1
Exemple 1
Beispiel 1
Esempio 1



Example 2
Exemple 2
Beispiel 2
Esempio 2



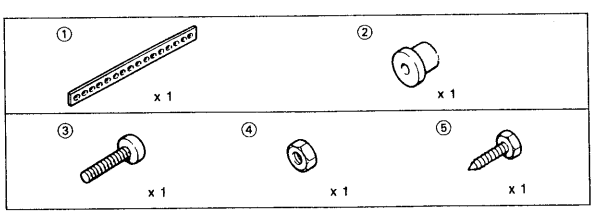
To Remove the Unit
Retrait de l'appareil
Zum Herausnehmen des Geräts
Estrazione dell'apparecchio



This prevents your car stereo set from being stolen.
Ceci permet d'éviter le vol de cet auto-radio stéréo.
Um einem Diebstahl vorzubeugen, kann das Gerät beim Verlassen des Fahrzeugs herausgenommen werden.
Questo previene il furto dell'apparecchio.

Supplied Mounting Hardware
Matériel de montage fourni
Mitgelieferte Montageteile
Materiale di montaggio in dotazione

The numbers in the list are keyed to those in the instructions.
Les numéros de la liste correspondent à ceux des instructions.
In der folgenden Liste und im Erläuterungstext werden die gleichen Nummern zur Kennzeichnung der Teile verwendet.
I numeri della lista corrispondono a quelli riportati nelle istruzioni.



Connections/Connexions/Anschluß/Collegamenti

Caution

- This unit is designed for negative ground 12 V DC operation only.
- Before making connections, disconnect the ground terminal of the car battery to avoid short circuits.
- Connect the **red** power input lead only after all other leads are connected. And be sure to connect it to the positive 12 V power terminal. It will be energized when the ignition key is set to the accessory position.
- **Run all ground wires to a common ground point.**

Attention

- Cet appareil est conçu uniquement pour un fonctionnement sur courant continu de 12 volts avec masse négative.
- Avant d'effectuer les connexions, déconnecter la borne de masse de la batterie de voiture pour éviter un court-circuit.
- Connecter le fil d'alimentation **rouge** uniquement une fois que tous les autres fils ont été connectés. S'assurer de le connecter à la borne positive de 12 volts. L'alimentation est fournie lorsque la clé de contact est mise sur la position accessoire.
- **Faire cheminer tous les fils de masse à une masse commune.**

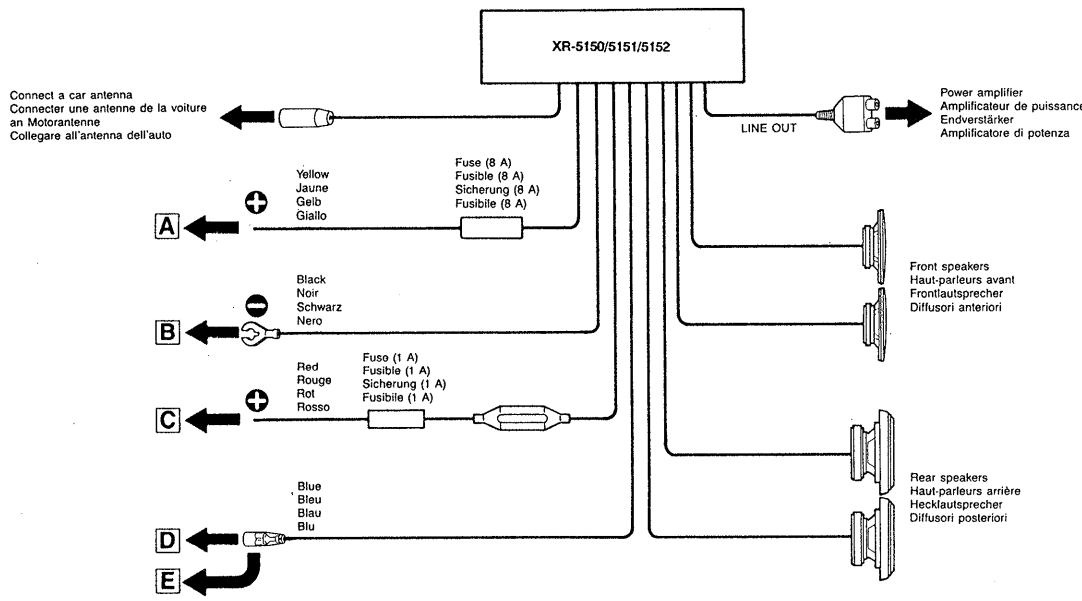
Vorsicht

- Dieses Gerät ist ausschließlich für eine negativ geerdete 12-V-Autobatterie bestimmt.
- Trennen Sie vor dem Anschließen des Geräts die Erdungsklemme der Batterie ab, um einen Kurzschluß zu vermeiden.
- Schließen Sie die **rote** Stromversorgungsleitung als letztes, nachdem alle anderen Anschlüsse hergestellt sind, an einen positiven 12-V-Kontakt des Bordnetzes an, der in der Zubehörposition des Zündschlosses unter Strom steht.
- **Leiten Sie alle Erdungskabel an einen gemeinsamen Massepunkt.**

Attenzione

- Questo apparecchio è stato progettato per l'uso solo a 12 V CC con massa negativa.
- Prima di eseguire i collegamenti, scollegare il terminale di massa della batteria delloauto per evitare cortocircuiti.
- Collegare il cavo **rosso** di ingresso alimentazione solo dopo aver collegato tutti i cavi e assicurarsi di collegarlo al terminale di alimentazione positivo da 12 V. Questo terminale è sotto tensione quando la chiavetta di accensione si trova nella posizione accessoria.
- **Portare tutti i cavi di massa a un punto di massa comune.**

Connection Diagram
Schéma des connexions
Anschlußdiagramm
Schema di collegamento



[A] : To the +12 V power terminal which is energized at all times

[B] : To a metal point of the car

[C] : To the +12 V power terminal which is energized with the ignition key in the accessory position

[D] : To the power antenna relay control box

[E] : To the power amplifier

Cord color
Red: Power input lead
Yellow: Power input lead
Blue: Power antenna relay control/Power amplifier control lead
Black: Ground wire

[A] : A la borne d'alimentation de +12 volts qui est énegétisée tout le temps

[B] : A un point métallique de la voiture

[C] : A la borne d'alimentation de +12 volts qui est énergétisée lorsque la clé de contact est sur la position accessoire

[D] : Au boîtier de contrôle de relais d'antenne moteur

[E] : A la amplificateur de puissance

Couleur des cordons
Rouge: Fil d'entrée d'alimentation
Jaune: Fil d'entrée d'alimentation
Bleu: Fil de contrôle de relais d'antenne/Fil de contrôle de l'amplificateur de puissance
Noir: Fil de masse

[A] : An 12-V-Kontakt des Bordnetzes, der stets unter Strom steht.

[B] : An Metallteil des Wagens.

[C] : An +12-V-Kontakt des Bordnetzes, der in der Zubehörposition des Zündschlosses unter Strom steht.

[D] : An Motorantennen-Relaisbox.

[E] : An Endverstärker.

Farbcodierung
Rot: Stromversorgungsleitung
Gelb: Stromversorgungsleitung
Blau: Steuerleitung für Motorantennen-Relais und Verstärker
Schwarz: Masse

[A] : al terminale di alimentazione + da 12 V sempre sotto tensione

[B] : a un punto metallico dell'auto

[C] : al terminale di alimentazione + da 12 V sotto tensione quando la chiavetta di accensione si trova in posizione accessoria

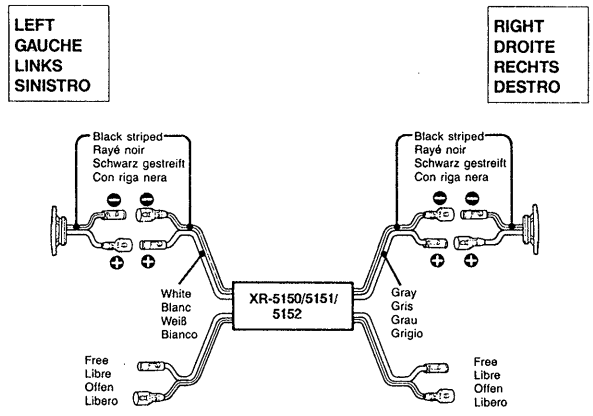
[D] : alla scatola di controllo a relé dell'antenna automatica

[E] : all'amplificatore di potenza

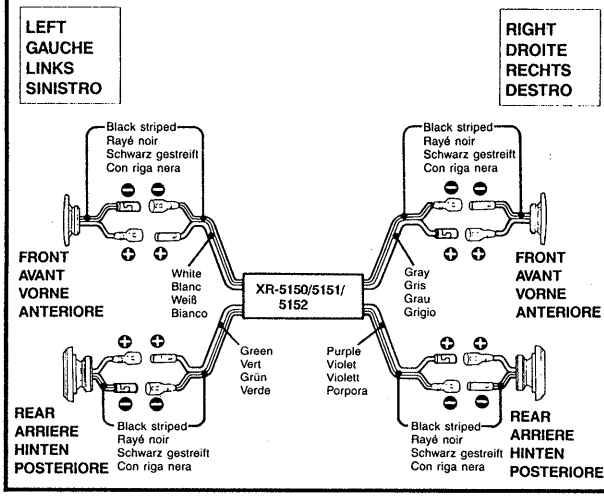
Colore dei cavi
Rosso: Cavo di ingresso alimentazione
Giallo: Cavo di ingresso alimentazione
Blu: Cavo di controllo a relé antenna automatica/Cavo di controllo amplificatore di potenza
Nero: Cavo di massa

Speaker Connection
Connexion des haut-parleurs
Anschluß der Lautsprecher
Collegamento dei diffusori

2-speaker connection
Connexion de deux haut-parleurs
Anschluß von zwei Lautsprechern
Collegamento di un sistema a 2 diffusori



4-speaker connection
Connexion de quatre haut-parleurs
Anschluß von zwei Lautsprechern
Collegamento di un sistema a 4 diffusori



Notes on speaker connection

- Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities. Otherwise, the speakers may be damaged.
- Do not connect the terminals of the speaker system to the car chassis, and do not connect the terminals of the right speaker with those of the left speaker.

Hinweise zum Lautsprecheranschluß

- Verwenden Sie nur Lautsprecher mit einer Impedanz von 4 bis 8 Ohm. Achten Sie darauf, daß die Lautsprecher ausreichend belastbar sind, damit sie nicht beschädigt werden.
- Verbinden Sie die Lautsprecherkabel nicht mit dem Wagenchassis und schalten Sie die rechten und linken Lautsprecheranschlüsse nicht parallel.

Remarques sur la connexion des haut-parleurs

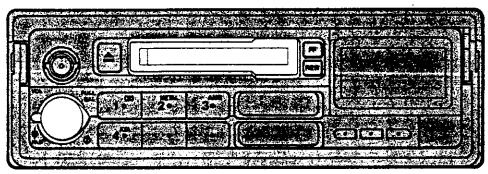
- Utiliser des haut-parleurs d'une impédance de 4 à 8 ohms et ayant une puissance nominale adéquate. Dans le cas contraire, les haut-parleurs peuvent être endommagés.
- Ne pas connecter les bornes du système de haut-parleur au châssis de la voiture et ne pas non plus connecter les bornes des haut-parleurs de droite avec celles des haut-parleurs de gauche.

Note sul collegamento dei diffusori

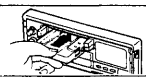
- Usare diffusori con impedenza da 4 a 8 ohm e con capacità di potenza adeguata, altrimenti i diffusori possono rimanere danneggiati.
- Non collegare i terminali del sistema diffusori al telaio dell'auto e non collegare quello del diffusore destro con quello del diffusore sinistro.

Cassette deck operation

Tape Playback



1 **Press to turn on the unit.**

2  **Insert a cassette.**
Playback starts automatically.

3 **Adjust the volume.**

Other Operations

To listen to the other side of the cassette
Press FF + REW (simultaneously).

To wind the tape rapidly

To advance the tape	Depress FF.
To rewind the tape	Depress REW.

To resume playback, press FF or REW lightly so as not to depress it.

To stop playback and listen to the radio
Press ⏏ The unit enters the radio mode.

To stop playback and turn off the unit
Press ⏏ and then

Before turning off the unit
Be sure to eject the tape to avoid tape damage.

To adjust the unit to each tape type

Tape type	
CrO2 (TYPE II) Metal (TYPE IV)	Press the METAL button.
Normal (TYPE I)	Press the METAL button again.

Listening to Dolby NR-processed tapes
Press the DD (Dolby NR) button to activate the B-type Dolby NR system.
Select the same Dolby NR system used for the recorded cassette. The Dolby NR (Noise Reduction) system reduces tape hiss noise in low-level, high-frequency signals.

Side of the cassette being played back or fast-wound

Indicator	
▶	The side facing upward
◀	The side facing downward

8

9

Tape playback

To Locate the Beginning of a Selection —Automatic Music Sensor (AMS)

1 Press 3 (AMS)

2 Depress FF or REW, according to the table below.

Next selection	Depress FF
Current selection	Depress REW

The desired selection may not be located if ...
— there is a noise in the space between selections.
— the space is less than 4 seconds long.
— the FF or REW button is pressed immediately before or after the desired selection, or within the blank space.

Playback may begin in the middle of the selection when the AMS is activated,
as the followings are treated as blanks:
— a long pause in the selection.
— a passage of low frequencies or very low volume.
— gradual increase or decrease of volume, as in some classical music.

To Turn on the Radio Automatically While Fast-winding the Tape (ATA function)

Press 4 (ATA)

The tuner turns on automatically when you press the FF or REW button during tape playback. When you resume the tape playback, the tuner turns off automatically.

Note
None of the preset buttons will function while the ATA function is in operation. However, other tuner operation buttons will function normally.

To control the balance of the front and rear speakers in a 4 speaker system
Use the FAD control.
Turn clockwise to decrease the volume of the rear speakers.
Turn counterclockwise to decrease the volume of the front speakers.

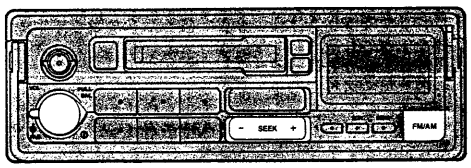
To control the balance of the right and left speakers
Use the PULL BAL control.
Pull out the control and turn clockwise to decrease the volume of the left speaker(s), and turn counterclockwise to decrease the volume of the right speaker(s).

10

11

Radio reception

Automatic Tuning



1
Press to turn on the unit.

2 FM/AM
Press to select the desired band, FM I, FM II, FM III, or AM. (XR-5150/5152)

FM MW/LW
Press to select the desired band, FM I, FM II, FM III, MW or LW. (XR-5151)

3 - SEEK +
Press to start scanning.

−: For lower frequency stations

+: For higher frequency stations

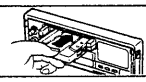
The scanning automatically stops when a station is tuned in.

Repeat this step until the desired station is tuned in.

4
Adjust the volume.

Other Operations

To stop the radio and start tape playback



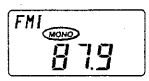
To stop the radio and turn off the unit

Press

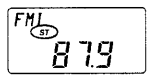
When the FM stereo program is too weak and noisy

XR-5152
SENS *
Press twice.
MONO
Press XR-5150/5151

The noise will be reduced.
The sound will be monaural instead.



When an FM stereo program of sufficient signal strength is tuned in



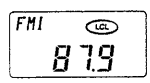
The program is automatically received in stereo.

*Each press on the button changes the mode cyclically as LCL (local) ➡ MONO ➡ normal ... .

When there are too many stations and the scanning stops too frequently during automatic tuning

XR-5152
SENS
Press once.
LOCAL
Press XR-5150/5151

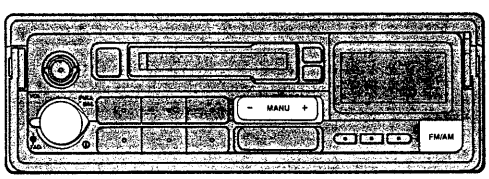
Only the stations with relatively strong signals can be tuned in.



Radio reception

Manual Tuning

Use this method when you know the frequency of the desired station, or when the desired station is too weak to be tuned in by the automatic tuning.



1
Press to turn on the unit.

2 FM/AM
Press to select the desired band, FM I, FM II, FM III or AM. XR-5150/5152)

FM MW/LW
Press to select the desired band, FM I, FM II, FM III, MW or LW. (XR-5151)

3 - MANU +
Press to select the desired station.

−: For lower frequency stations

+: For higher frequency stations

To change the frequency rapidly, keep the button pressed.

4
Adjust the volume.

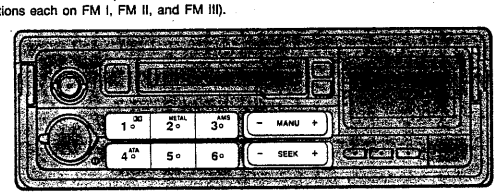
Warning
While driving, keep your eyes on the road and use the automatic tuning or memory preset tuning!

Radio reception

Memory Preset Tuning

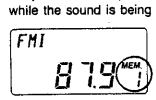
To Memorize the Stations

The unit can memorize up to 6 stations on the AM band and 18 stations on the FM band (6 stations each on FM I, FM II, and FM III).



1 - SEEK +
or
- MANU +
Tune in a desired station using the automatic or manual tuning.

2 1 — 6
Keep the desired preset button pressed while the sound is being muted.



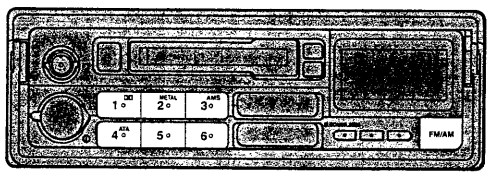
The station is memorized.

Repeat these steps for each preset button.

Important
Every preset button has only one memory for a band. The previously memorized station will be erased when you enter a new station of the same band on the same preset button.

Memory Preset Tuning

To Receive the Preset Station

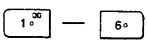


1

Press to select the desired band. (XR-5150/5152)

Press to select the desired band. (XR-5151)

2



Press the desired preset button lightly.

To memorize the stations automatically

Press the M.SCAN/A.MEM button for more than two seconds. The unit scans for the stations, and memorize them on the preset number in order of frequency and of the preset number. (Scanning starts from the frequency indicated on the display window.)

Press the FM/AM button again to select FM I, FM II, FM III, or AM and repeat the procedure again.

If a station is received when you start to memorize

The station will be memorized on the preset number 1.

When any other preset number is indicated on the display window

The stations will be memorized on the next preset number to the preset number 6.

To survey what is being broadcasted on the preset stations

Press the M.SCAN/A.MEM button. Each memorized station will be scanned for a few seconds. To stop scanning, press the M.SCAN/A.MEM button again at the desired program.

Maintenance

Fuse Replacement

If the fuse blows, check the power connection and replace the fuse. If the fuse blows again after replacement, there may be an internal malfunction. In this case, consult your nearest Sony dealer.

Warning

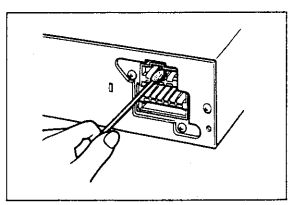
Use the specified amperage fuse for each lead. Use of a higher amperage fuse may cause serious damage.

Cleaning the Head and the Tape Path

Prolonged use may contaminate the tape head and the tape path. Contamination causes sound drop-outs in playback. Clean the tape head and the tape path every two weeks to enjoy optimum hi-fi stereo sound. Use a commercially available cleaning cassette.

Cleaning the Connector

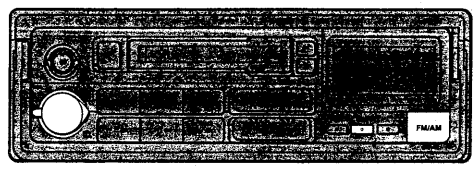
To keep the best possible sound quality, clean the metallic part of the connector at the rear of the unit periodically using a commercially available head cleaning fluid or rubbing alcohol and a cotton swab.



Radio reception

To Receive Traffic Information Broadcasts

Preparation (XR-5152)



1

Press to turn on the unit.

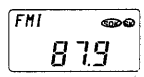
2

Press to select the FM band.

3

Press SDK button.

The unit searches for a traffic information station. The search will stop and the SK indication will appear on the display window when the station is tuned in.



When the Traffic Information Broadcasts Starts

During a radio reception

The information broadcast will be automatically heard at the preset volume level.

During a tape playback

The tape stops and the traffic information station will be tuned in automatically. When the broadcast is over, the tape playback will be resumed. The broadcast will be heard at the preset volume level.

If the signals from the first traffic information station to be received is too weak

The next station with higher frequency will be automatically tuned in.

To listen to only the traffic information broadcasts during a radio reception

Set the VOL control to its minimum level.

SECTION 2
ADJUSTMENTS

2-1. MECHANICAL ADJUSTMENT

PRECAUTION

1. Wipe the following components with an absorbent cotton cloth moistened with alcohol before adjustment:
   PB head — Pinch roller
   Idler — Rubber belt
   Capstan
2. Demagnetize the PB head using a head demagnetizer.
3. Be careful not to use a magnetized screwdriver.
4. After the adjustment is completed, lock the adjustment parts using screws.
5. Unless otherwise specified, make adjustments at the specified voltage (14.4 V).

Torque Measurement

Measure the torque at a supply voltage of 14.4 V DC.

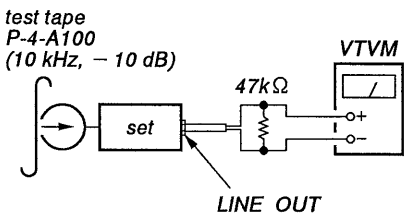
	Torque Meter	Meter reading
FWD	CQ-102C	25 to 55 g•cm (0.35 to 0.77 oz•inch)
FF, REV	CQ-201B	55 to 150 g•cm (0.77 to 2.1 oz•inch)
Back tension	CQ-102C	1.5 to 4 g•cm or less (0.02 to 0.05 oz•inch or less)

2-2. ELECTRICAL ADJUSTMENT DECK SECTION

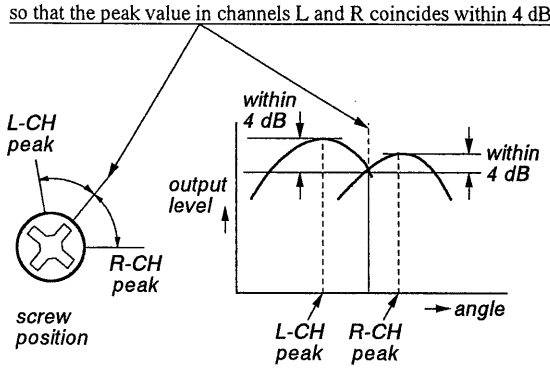
PB Head Vertical Adjustment

Procedure:

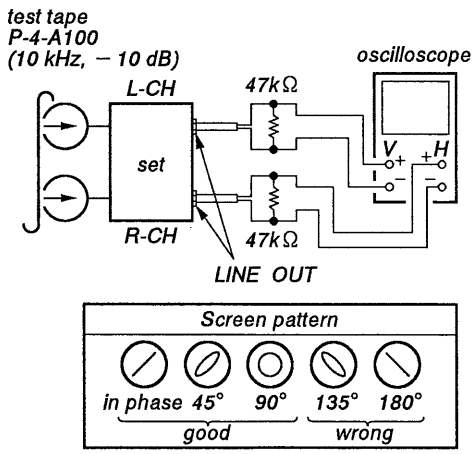
1. Put the set into the FWD PB mode.



2. Turn the screw and check the output peak value. Adjust the screw so that the peak value in channels L and R coincides within 4 dB μ.



3. Check the phase in the PB mode.



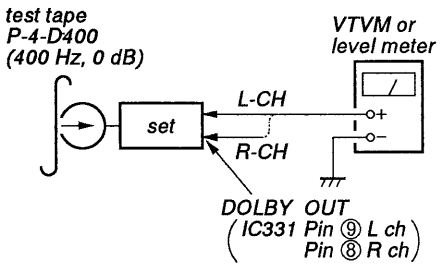
4. Repeat the above adjustment for the REV PB mode.
5. Check that output level difference between FWD PB mode and REV PB mode is within 4 dB μ

Adjustment Location: Mechanism Deck

DOLBY NR Level Adjustment

Setting:

DOLBY NR switch: OFF
METAL switch: OFF



Procedure:

1. Put the set into the FWD PB mode.
2. Adjust RV101 (L-CH) so that VTVM reading is −10 dB ± 1 dB.
3. Put the set into the REV PB mode.
4. Adjust RV201 (R-CH) so that VTVM reading is −10 dB ± 1 dB.

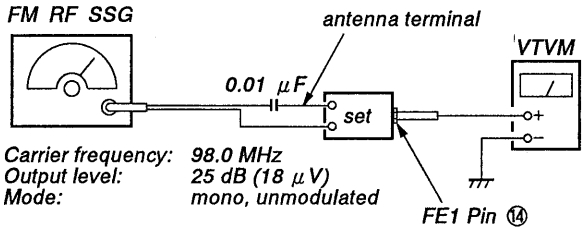
Adjustment Location: Main board

TUNER SECTION

Cautions during repair
When the front end is defective, replace it by a new one because its internal block is difficult to repair.

FM Stop Level Adjustment

Setting:
Band switch : FM
MONO switch: ON
Frequency: 98.0 MHz



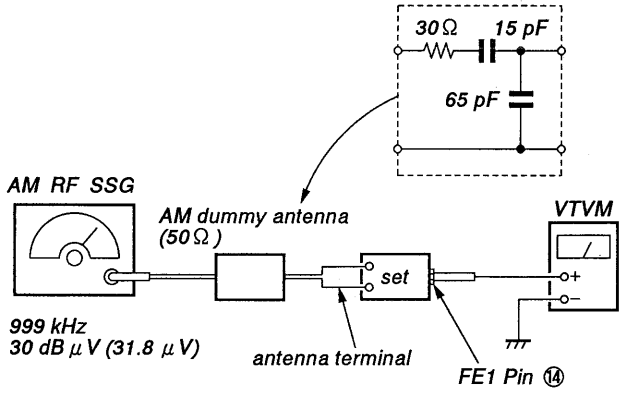
Procedure:
1. Tune in 98 MHz.
2. Adjust RV A so that the VTVM reading changes from low to high (5.5 V reference voltage).
3. When the FM RF SSG's output level is 25 ±3 dB μV.

Adjustment Location: FE1 on Main board

AM (MW/LW) Stop Level Adjustment

Note: This adjustment should be made after FM auto scan stop level adjustment is completed.

Setting:
Band switch : AM
Frequency: 999 kHz

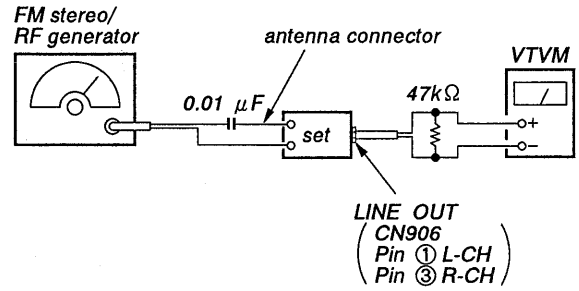


Procedure:
1. Tune in 999 kHz.
2. Adjust RV B so that the VTVM reading changes from low to high (5.5 V reference voltage).
3. When the AM RF SSG's output level is 30 ±3 dB μV check that the auto scan stopped.

Adjustment Location: FE1 on Main board

FM Stereo Separation Adjustment

Setting:
Band switch : FM
Frequency: 98.0 MHz



Carrier frequency: 98.0 MHz
Output level: 70 dB μV (3.15 mV)
Modulation: main; 1 kHz, 33.75 kHz deviation
sub; 1 kHz, 33.75 kHz deviation
19 kHz pilot; 7.5 kHz deviation

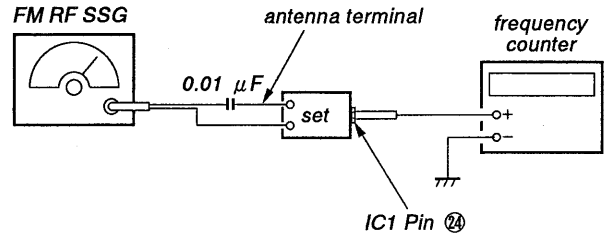
Procedure:
1. Adjust RV1 for a best stereo separation at a LINE OUT level of approximately +10 dB.

FM stereo signal generator output channel	VTVM connection	VTVM reading (dB)
L-CH	L-CH	Ⓐ
R-CH	L-CH	Ⓑ Adjust RV1 for minimum reading.
R-CH	R-CH	Ⓒ
L-CH	R-CH	Ⓓ Adjust RV1 for minimum reading.

L-CH Stereo separation: Ⓐ − Ⓑ
R-CH Stereo separation: Ⓒ − Ⓓ
The separations of both channels should be equal.

FM VCO Adjustment

Setting:
Band switch : FM stereo



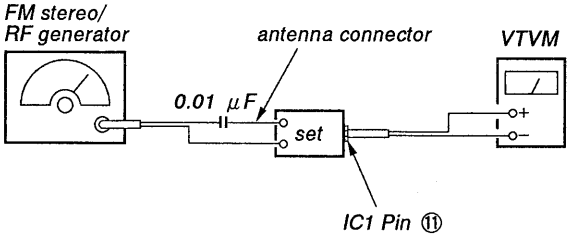
Procedure:
Adjust RV3 to obtain 19 kHz ±0.3 kHz reading on frequency counter.

Adjustment Location: Main board

FM Stereo Noise Control/High Cut Control Adjustment

Setting:

Band switch : FM
Frequency: 98.0 MHz



Carrier frequency: *98.0 MHz*
Output level: *40 dB μV (100 mV)*
Modulation: *main; 1 kHz, 33.75 kHz deviation*
sub; 1 kHz, 33.75 kHz deviation
19 kHz pilot; 7.5 kHz deviation

Procedure:

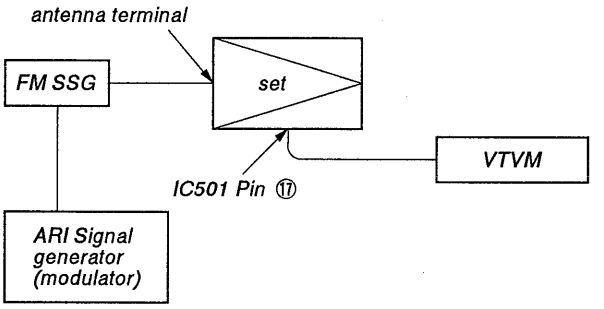
1. Tune in 98.0 MHz.
2. Turn off R ch output of FM stereo/RF generator.
3. Adjust RV2 so that the voltage on Pin ⑪ of IC1 becomes 0.5 ±0.05 V dc.

Adjustment Location: Main board

ARI Level Adjustment (XR-5152 only)

Setting:

Band switch : FM
Frequency: 98.0 MHz



Carrier frequency: *98.0 MHz*
Output level: *60 dB μV (1 mV)*
Modulation: *main; 1 kHz, 33.75 kHz deviation*
sub; 1 kHz, 33.75 kHz deviation
19 kHz pilot; 7.5 kHz deviation
SK, BK, DK modulation

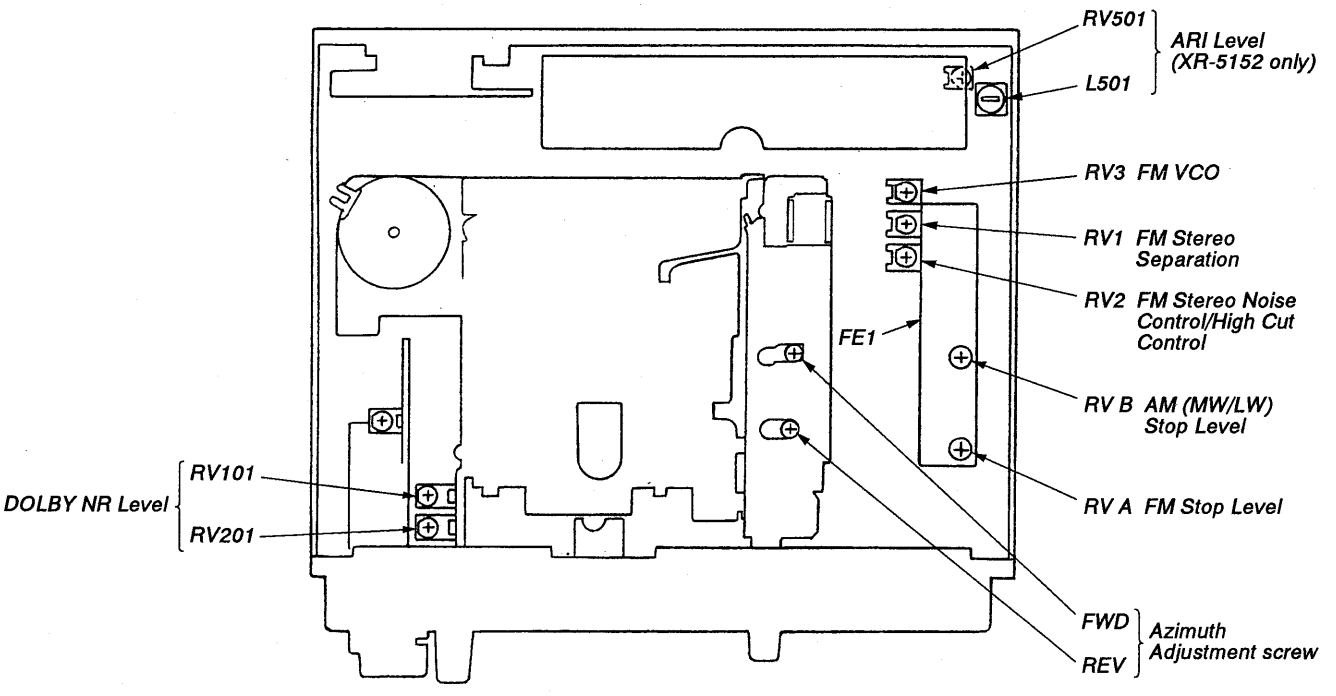
Procedure:

1. Adjust L501 and RV501 so that the output waveform become the maximum.

Specification: 1 Vrms or more

Adjustment Location: Main board

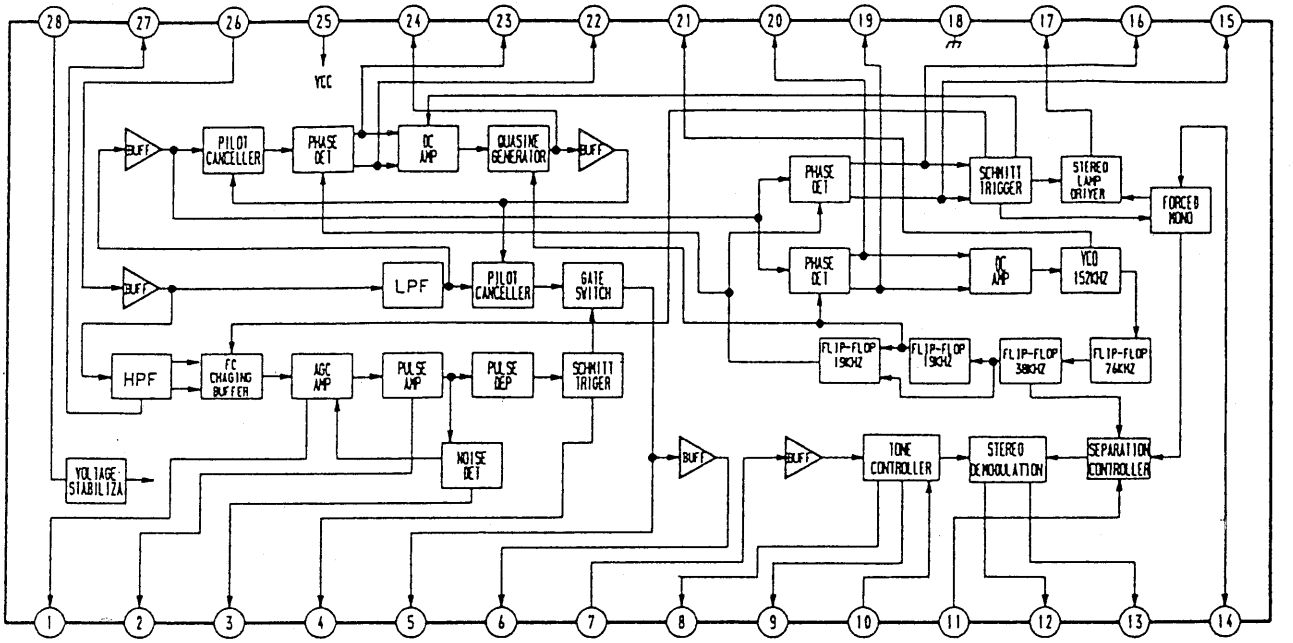
[Adjustment Location Diagram]



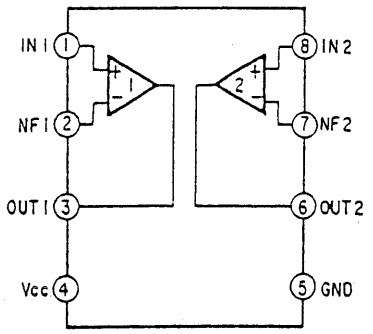
SECTION 3
DIAGRAMS

3-1. IC BLOCK DIAGRAMS

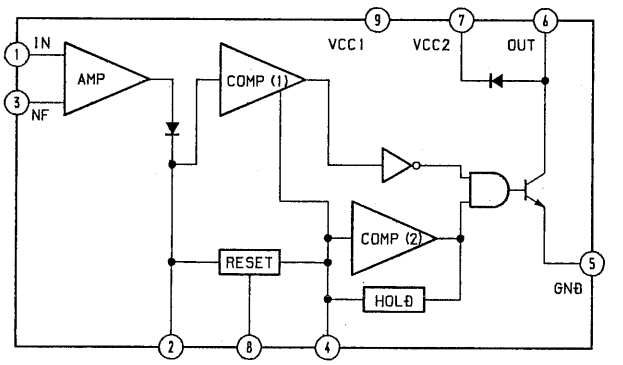
IC1 AN7463S



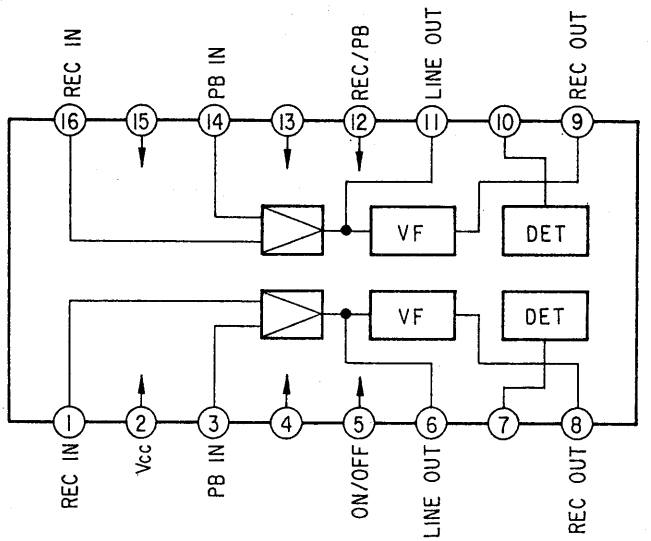
IC101 μPC1228HA



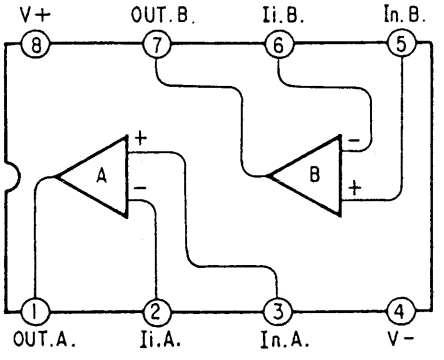
IC301 LA2010



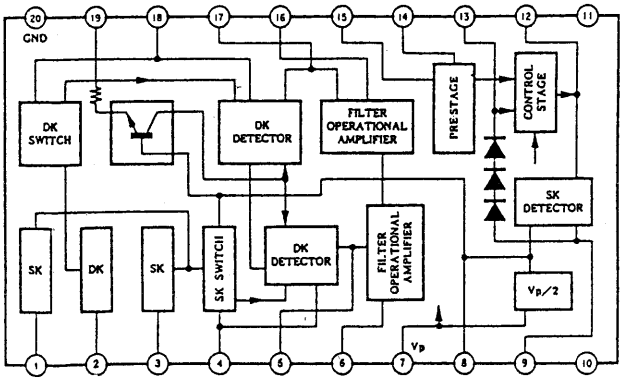
IC331 CXA1101M



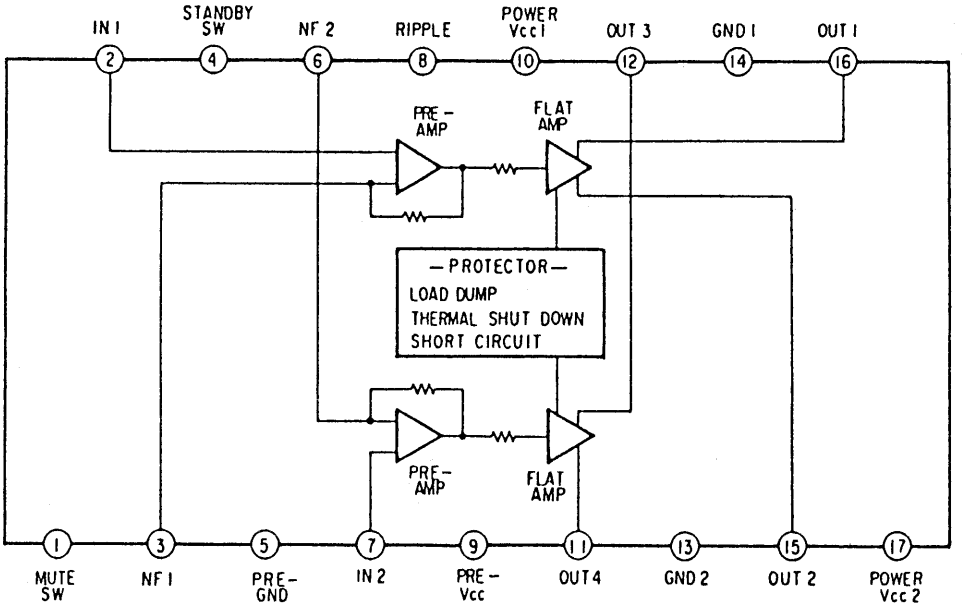
IC361 μPC4570



IC501 TDA1579



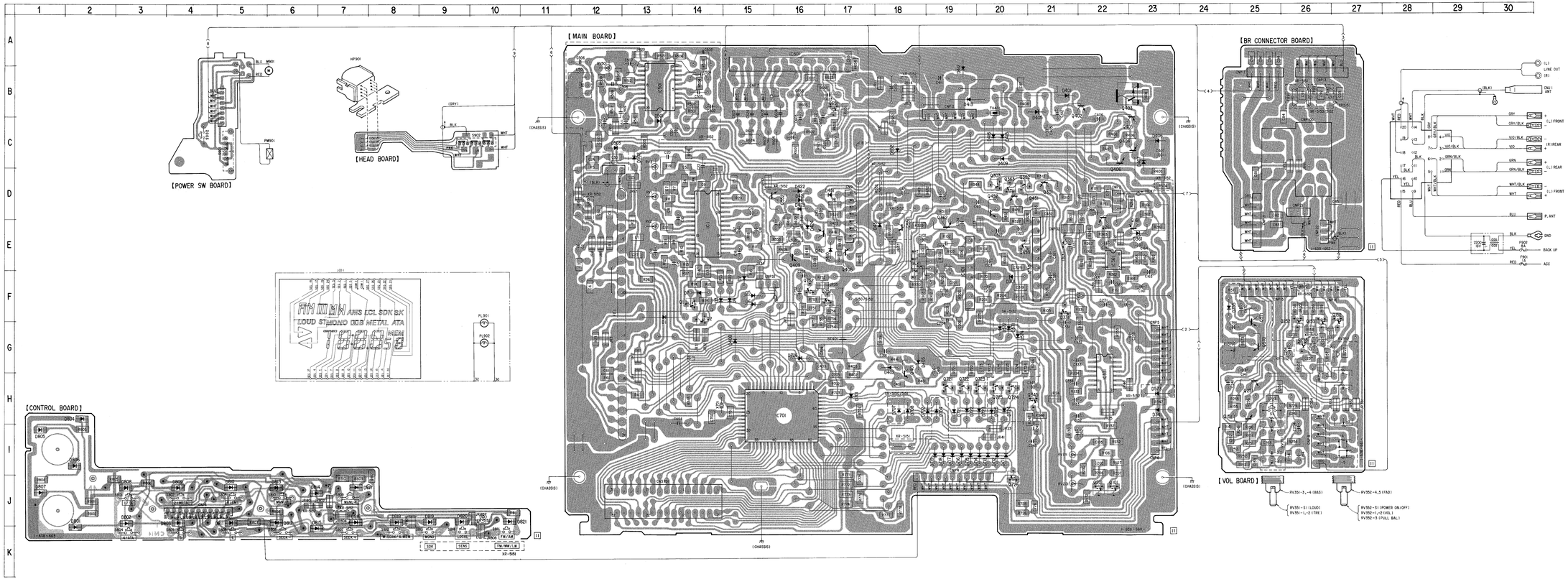
IC601 TA8221H

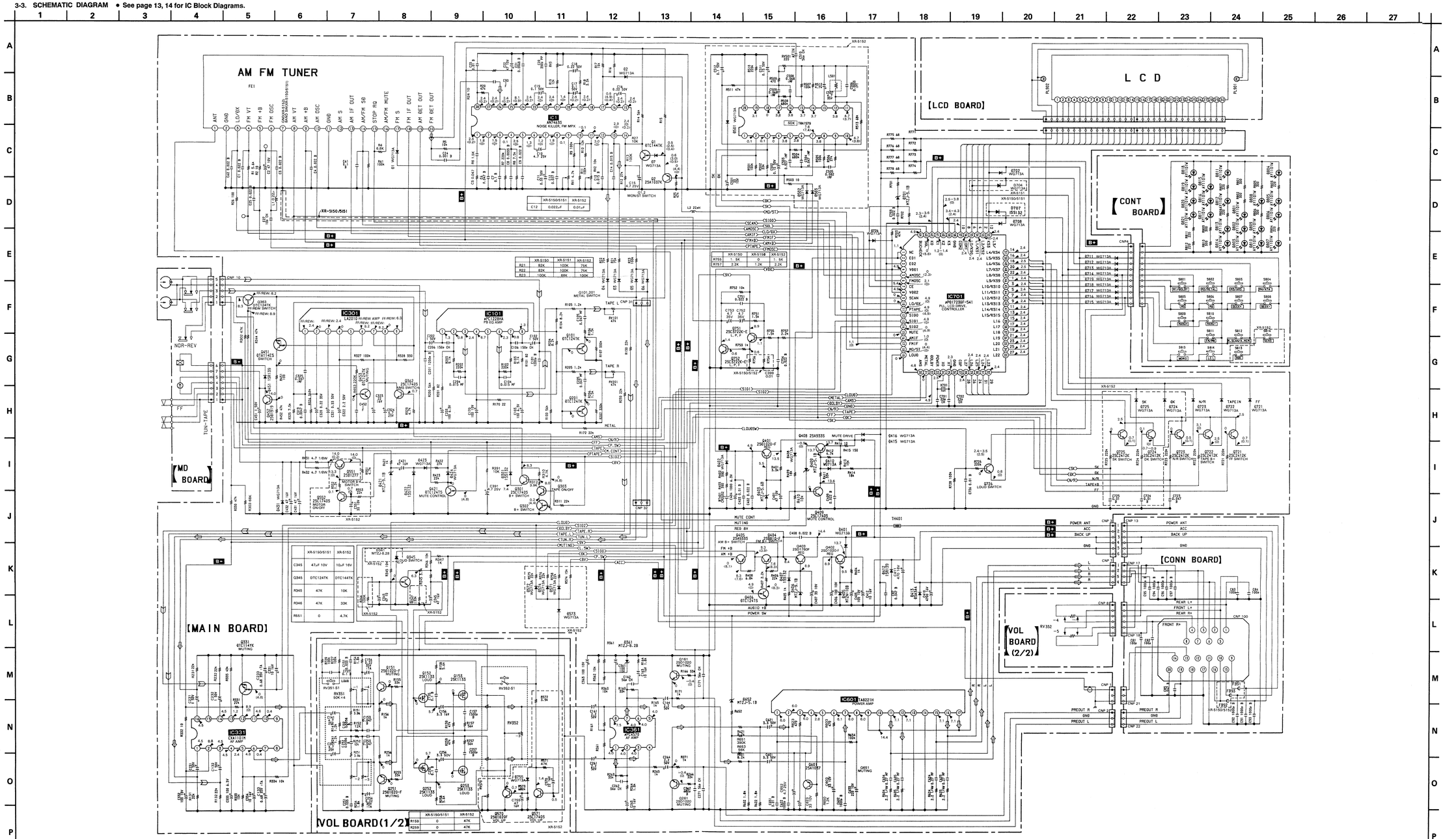


Note:
- ○——— : parts extracted from the component side.
- ● : Through hole.
- ▒▒▒ : Pattern on the side which is seen.
- ▒▒▒ : Pattern of the rear side.

• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D1	F-13	D810	J-5
D2	F-15	D811	J-5
D3	F-14	D812	J-6
D4	F-15	D813	J-6
D5	F-15	D814	J-6
D6	F-15	D815	J-6
D7	F-14	D816	J-7
D301	F-20	D817	J-7
D341	H-23	D818	J-8
D361	E-23	D819	J-9
D401	B-21	D820	J-9
D402	G-18	D821	J-10
D403	G-18		
D405	B-21	IC1	E-14
D406	C-23	IC101	F-19
D407	C-23	IC301	E-21
D408	G-15	IC331	H-22
D409	C-20	IC361	E-22
D410	E-17	IC501	B-13
D412	B-19	IC601	A-16
D413	B-19	IC701	H-16
D415	C-20		
D416	C-20	Q1	F-14
D421	D-16	Q2	F-14
D422	D-16	Q101	J-22
D423	D-16	Q151	H-25
D424	E-16	Q152	G-27
D431	E-18	Q153	G-26
D451	D-17	Q161	E-23
D501	C-13	Q201	J-22
D502	C-13	Q251	H-25
D503	C-12	Q252	G-26
D571	G-20	Q253	G-26
D572	G-20	Q261	E-22
D573	H-23	Q301	D-21
D574	G-20	Q302	D-20
D652	C-18	Q303	D-20
D701	H-17	Q331	F-21
D702	H-18	Q345	H-21
D704	H-19	Q362	E-19
D707	H-18	Q363	D-20
D708	H-18	Q401	G-18
D711	I-20	Q402	B-21
D712	I-20	Q403	B-22
D713	I-20	Q404	C-22
D714	I-19	Q405	C-22
D715	I-19	Q406	C-22
D716	I-19	Q408	E-17
D717	I-19	Q409	E-16
D718	I-19	Q421	E-16
D719	I-19	Q451	D-20
D721	H-19	Q452	D-20
D722	H-19	Q453	E-20
D723	H-20	Q551	E-18
D724	H-20	Q552	D-16
D725	H-20	Q570	G-25
D726	G-16	Q571	F-25
D755	F-24	Q651	B-17
D801	J-2	Q721	H-19
D802	J-3	Q722	H-19
D803	J-4	Q723	H-20
D804	H-4	Q724	H-20
D805	I-1	Q725	H-20
D806	I-2	Q726	J-20
D807	J-1	Q751	F-17
D808	J-3	Q752	F-16
D809	J-4		





Note:

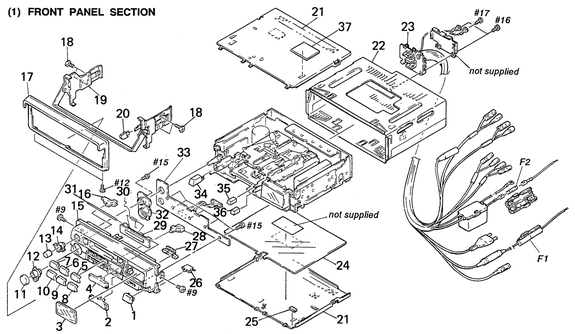
- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼ W or less unless otherwise specified.
- B + : B + Line.
- ▭ : adjustment for repair.
- Power voltage is dc 14.4 V and fed with regurated dc power supply from battery terminal
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : PB/FM/AM
  ( ) : FM/AM
  < > : AM
- Voltages are taken with a VOM (10 MΩ/V).
  Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ▷ : FM
  ▷ : PB

SECTION 4
EXPLODED VIEWS

NOTE:

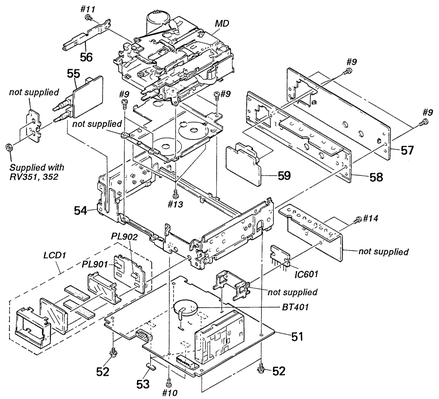
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ Parts Color ↑ Cabinet's Color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list is given in the last of this parts list.

(1) FRONT PANEL SECTION



Ref.No.	Part No.	Description	Remark
1	3-366-776-01	BUTTON (FM/AM) (XR-5150/5152)	
1	3-366-776-11	BUTTON (FM/MW/LW) (XR-5151)	
2	3-366-781-11	BUTTON (SEEK)	
3	3-366-830-01	WINDOW (LCD)	
4	3-366-781-01	BUTTON (MANU)	
5	3-366-849-01	BUTTON (3/AMS)	
6	3-366-848-01	BUTTON (2/METAL)	
7	3-366-847-01	BUTTON (1/DOLBY)	
8	3-366-849-11	BUTTON (6)	
9	3-366-848-11	BUTTON (5)	
10	3-366-847-11	BUTTON (4/ATA)	
11	X-3362-740-1	KNOB (VOL) ASSY	
12	3-366-825-01	KNOB (FAD)	
13	X-3362-741-1	KNOB (TRE) ASSY	
14	3-366-826-01	KNOB (BASS)	
15	X-3362-742-1	PANEL, FRONT (XR-5152)	
15	3-366-777-01	PANEL, FRONT (XR-5150/5151)	
16	3-366-774-01	PLATE (EJECT), LIGHT GUIDE	
17	3-367-061-01	FRAME, ORNAMENTAL	
18	3-344-561-01	SCREW (M4X5)	
19	X-3362-761-1	HANDLE ASSY	
20	3-367-065-01	BUTTON (HANDLE)	
21	3-358-691-01	COVER	
22	X-3362-727-1	BRACKET	
23	1-590-581-11	CORD (WITH CONNECTOR)	
24	* 3-358-698-01	INSULATOR (3)	
25	9-911-840-XX	CUSHION, CASSETTE LID	
26	* 3-368-473-01	PLATE (F), SHIELD	
27	3-365-852-01	BUTTON (M.SCAN/A.MEM)	
28	3-366-775-01	PLATE (FF), LIGHT GUIDE	
29	X-3362-746-1	LID ASSY, CASSETTE (XR-5150)	
29	X-3362-748-1	LID ASSY, CASSETTE (XR-5152)	
29	X-3362-747-1	LID ASSY, CASSETTE (XR-5151)	
30	3-366-754-01	SPRING, TORSION	
31	3-350-709-01	SHAFT, CASSETTE DOOR	
32	* 3-366-829-01	PLATE (VOL), LIGHT GUIDE	
33	* A-3273-390-A	CONTROL BOARD, COMPLETE (XR-5150/5151)	
33	A-3273-443-A	CONTROL BOARD, COMPLETE (XR-5152)	
34	3-366-835-01	BUTTON (EJECT)	
35	3-366-836-01	BUTTON (FF)	
36	3-366-837-01	BUTTON (REW)	
37	* 3-367-346-01	LABEL, MODEL NUMBER (XR-5150)	
37	* 3-367-347-01	LABEL, MODEL NUMBER (XR-5151)	
F1	1-532-452-XX	FUSE, GLASS TUBE (1A)	
F2	1-576-075-11	FUSE, GLASS TUBE (8A)	

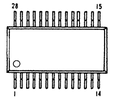
(2) CHASSIS SECTION



Ref.No.	Part No.	Description	Remark
51	* A-3222-233-A	MAIN BOARD, COMPLETE (XR-5150)	
51	* A-3222-238-A	MAIN BOARD, COMPLETE (XR-5151)	
51	A-3222-291-A	MAIN BOARD, COMPLETE (XR-5152)	
52	3-344-581-11	SCREW (+ PTT 3X8), GROUND POINT	
53	9-911-841-XX	CUSHION, CASSETTE LID	
54	X-3362-728-1	CHASSIS ASSY	
55	* A-3273-388-A	VOL BOARD, COMPLETE (XR-5150/5151)	
55	A-3273-563-A	VOL BOARD, COMPLETE (XR-5152)	
56	3-366-857-01	LEVER (EJECT)	
57	3-366-840-01	PANEL (REAR)	
58	* X-3362-713-1	CHASSIS (REAR) ASSY	
59	1-638-516-11	BR CONNECTOR BOARD	
BT401	1-528-225-31	BATTERY, LITHIUM	
IC601	8-759-242-83	IC TA8221H	
LCD1	1-809-289-11	DISPLAY PANEL, LIQUID CRYSTAL	
PL901	1-518-682-11	LAMP, PILOT	
PL902	1-518-682-11	LAMP, PILOT	

• Semiconductor Lead Layouts

AN7463S



(TOP VIEW)

CXA1101M

(TOP VIEW)

TA8221H

TDA1579T

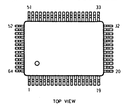
(TOP VIEW)

μPC1228HA

μPC4570-G2

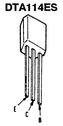
(TOP VIEW)

μPC1723GF-558-3BE

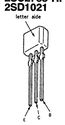


TOP VIEW

DTA114ES



DTC124TS
2SA1150
2SC2785-HFE
2SD1021

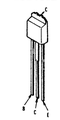


2SA933S-OR

2SA1428-Y

2SD1055

2SD1802-S

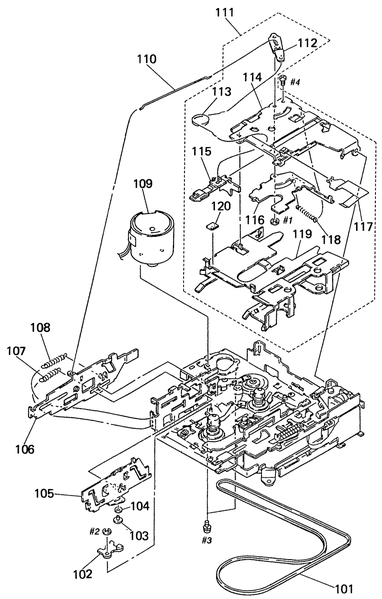


DSA3A4

MTZN-10B
RD5.1ES-B2
RD5.6ES-B2
RD8.3ES-B2
RD9.1ES-B2
WG713A
ISR-139-100

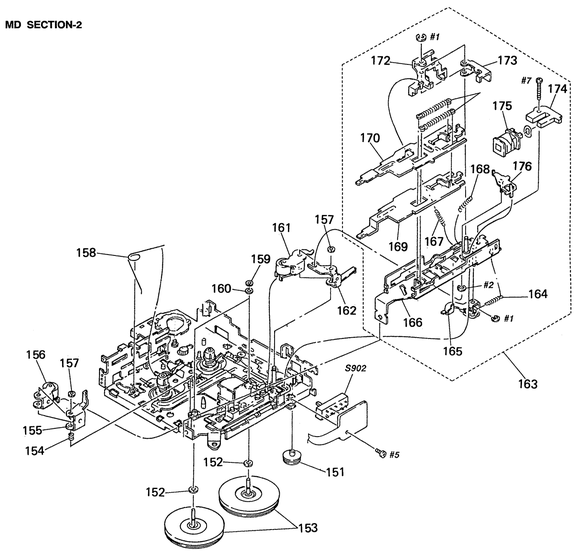
AY1101W

(3) MD SECTION-1



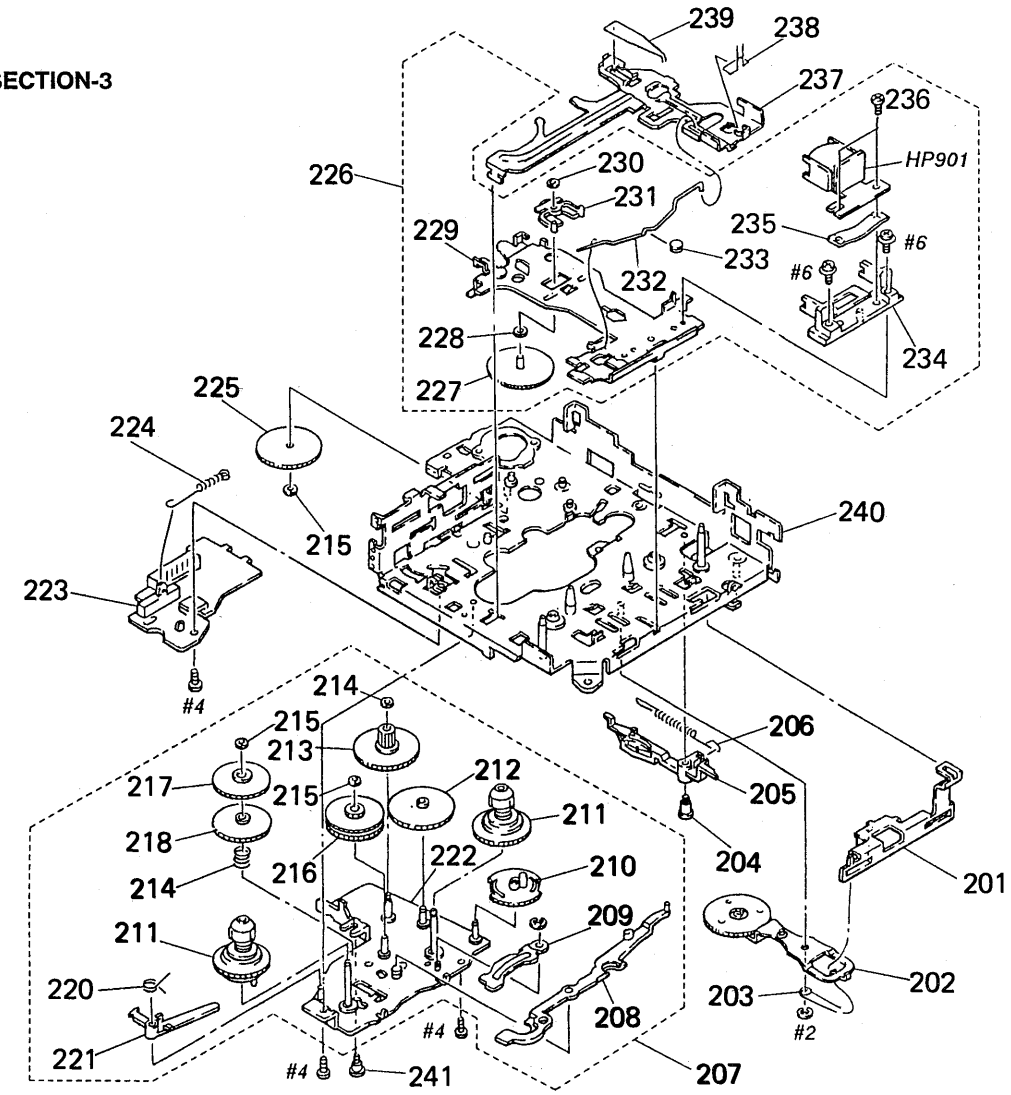
Ref.No.	Part No.	Description	Remark
101	3-367-284-01	BELT, MAIN	
102	3-367-313-01	ARM, H.P PUSH	
103	3-367-264-01	ROLLER (A), H.P	
104	3-367-265-01	ROLLER (B), H.P	
105	* 3-367-311-01	PLATE (M), PUSH, C.H	
106	* 3-367-269-01	LEVER (M), PUSH	
107	3-367-267-01	SPRING, C.H	
108	3-367-268-01	SPRING, PUSH LEVER	
109	3-367-276-01	MOTOR ASSY	
110	3-367-260-01	SPRING, P.E	
111	X-3362-789-1	CASE ASSY, CASSETTE	
112	* 3-367-252-01	RIVETING ASSY, P.E PLATE	
113	3-367-255-01	SPRING (C), REVERSE	
114	* 3-367-251-01	LIFTER, CASE	
115	3-367-258-01	SLIDER (C), PACK	
116	* 3-367-257-01	PLATE (B), C.D	
117	* 3-367-259-01	SPRING, PACK RETAINER	
118	3-367-253-01	SPRING, C.D	
119	* 3-367-256-01	CASE (M), CASSETTE	
120	3-367-254-01	RUBBER, CUSHION	

(4) MD SECTION-2



Ref.No.	Part No.	Description	Remark
151	3-367-287-01	PULLEY, MIDWAY	
152	3-701-437-01	WASHER	
153	3-367-283-01	RIVETING ASSY, F.L CAPSTAN	
154	3-367-285-01	SPRING, P.P	
155	* 3-367-296-01	ARM, H.P RETURN	
156	3-367-232-01	ARM (R) ASSY, PINCH ROLLER	
157	3-676-387-00	POLY-SLIDER (DIA.1.6)	
158	3-367-314-01	SPRING (M), HEAD PANEL	
159	3-592-680-00	WASHER (C), POLYETHYLENE	
160	3-315-495-41	WASHER	
161	3-367-231-01	ARM (F) ASSY, PINCH ROLLER	
162	* 3-367-292-01	PLATE, FUNCTION, SEESAW	
163	X-3362-790-1	LEVER ASSY, F.R	
164	3-367-302-01	SPRING, P.C	
165	* 3-367-301-01	PLATE, P.C	
166	* 3-367-233-01	RIVETING ASSY, F.R BRACKET (M)	
167	3-367-304-01	SPRING (M), LOCK PLATE	
168	3-367-308-01	SPRING, RELEASE PLATE	
169	* 3-367-300-01	LEVER (M.V), REW	
170	* 3-367-299-01	LEVER (M.V), FF	
171	3-367-298-01	SPRING, F.R LEVER	
172	* 3-367-303-01	LOCK PLATE (M)	
173	* 3-367-305-01	PLATE, RELEASE	
174	3-367-307-01	CORE, T	
175	3-367-306-01	COIL ASSY, T	
176	* 3-367-234-01	RIVETING ASSY, SEESAW PLATE (M)	
S902	1-572-712-11	SWITCH, SLIDE	

(5) MD SECTION-3



Ref. No.	Part No.	Description	Remark
201	* 3-367-294-01	PLATE (M), F.R SLIDE	
202	X-3362-791-1	PLATE ASSY, F.R WORKING	
203	3-367-282-01	SPRING (M), F.R	
204	3-367-290-01	SCREW (T), COLOR	
205	3-367-289-01	ARM (C), TRIGGER	
206	3-367-297-01	SPRING (C), T.A	
207	X-3362-788-1	PLATE ASSY, M.G	
208	3-367-241-01	PLATE (B), E.D	
209	* 3-367-245-01	PLATE, LIFTUP	
210	3-367-240-01	GEAR (M), REVERSE	
211	3-367-235-01	REEL ASSY, T	
212	3-367-239-01	GEAR, E.D	
213	3-367-238-01	GEAR, P.D	
214	3-676-387-00	POLY-SLIDER (DIA.1.6)	
215	3-318-236-01	WASHER, POLY, SLIT	
216	3-367-244-01	CLUTCH ASSY, P	
217	3-367-236-01	GEAR (R), P	
218	3-367-237-01	GEAR (R), F	
219	3-367-243-01	SPRING, T.N	
220	3-367-247-01	SPRING	
221	3-367-246-01	ARM, REVERSE PREVENTION	

Ref. No.	Part No.	Description	Remark
222	* 3-367-242-01	RIVETING ASSY, M.G PLATE	
223	* 3-367-312-01	SWITCH ASSY, POWER	
224	3-367-293-01	SPRING, POWER SWITCH	
225	3-367-286-01	GEAR (M), MAIN	
226	X-3362-824-1	PANEL ASSY, HEAD	
227	3-367-227-01	GEAR, P	
228	3-701-447-11	WASHER, 10	
229	* 3-367-223-01	RIVETING ASSY, HEAD PANEL	
230	3-325-290-21	WASHER, STOPPER	
231	3-367-226-01	METAL, P. GEAR	
232	3-367-225-01	SPRING, P.R	
233	3-367-224-01	ROLLER, SP	
234	3-367-228-01	GUIDE, TAPE	
235	3-367-229-01	PLATE (H), HEAD SP	
236	3-390-757-01	SCREW, ADJUSTMENT, AZIMUTH	
237	* 3-367-272-01	PLATE, MAIN	
238	3-367-274-01	SPRING, H.S	
239	3-367-273-01	SPRING, M.S	
240	* 3-367-222-01	RIVETING ASSY, CHASSIS	
241	3-367-295-01	SCREW (P), COLOR	
HP901	1-543-829-11	HEAD, CERAMIC (PLAYBACK)	

SECTION 5
ELECTRICAL PARTS LIST

BR CONNECTOR | CONTROL

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: μ, for example:
  uA...: μA..., uPA...: μPA...,
  uPB...: μPB..., uPC...: μPC...,
  uPD...: μPD...
- CAPACITORS
  uF: μF
- COILS
  uH: μH

When including parts by reference number, please include the board name.

Ref. No.	Part No.	Description			Remark
*	1-638-616-11	BR CONNECTOR BOARD			
		**********			
		< CAPACITOR >			
C81	1-163-181-00	CERAMIC CHIP	100PF	5%	50V
C82	1-163-181-00	CERAMIC CHIP	100PF	5%	50V
C83	1-163-181-00	CERAMIC CHIP	100PF	5%	50V
C84	1-163-181-00	CERAMIC CHIP	100PF	5%	50V
C85	1-163-075-00	CERAMIC CHIP	0.047uF		50V
C91	1-163-205-00	CERAMIC CHIP	0.001uF	5%	50V
C92	1-163-205-00	CERAMIC CHIP	0.001uF	5%	50V
C93	1-163-205-00	CERAMIC CHIP	0.001uF	5%	50V
C94	1-163-205-00	CERAMIC CHIP	0.001uF	5%	50V
C95	1-163-205-00	CERAMIC CHIP	0.001uF	5%	50V
C96	1-163-205-00	CERAMIC CHIP	0.001uF	5%	50V
C97	1-163-205-00	CERAMIC CHIP	0.001uF	5%	50V
		< CONNECTOR >			
CNP13	* 1-564-521-11	PLUG, CONNECTOR 6P			
CNP17	* 1-564-519-11	PLUG, CONNECTOR 4P			
CNP18	* 1-564-521-11	PLUG, CONNECTOR 6P			
CNP21	* 1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P			
CNP22	* 1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P			
CNP100	1-580-979-11	PLUG, CONNECTOR 20P			
		< FERRITE BEAD INDUCTOR >			
FB91	1-410-396-41	FERRITE BEAD INDUCTOR (XR-5150/5152)			
FB92	1-410-397-21	FERRITE BEAD INDUCTOR (XR-5150/5152)			
FB93	1-410-397-21	FERRITE BEAD INDUCTOR (XR-5150/5152)			
		< JUMPER RESISTOR >			
JR91	1-249-366-11	CARBON MELF	0	5%	1/5W
JR92	1-249-366-11	CARBON MELF	0	5%	1/5W
**********					

Ref. No.	Part No.	Description			Remark
*	A-3273-443-A	CONTROL BOARD, COMPLETE			
		**********			
		< DIODE >			
D801	8-719-975-84	DIODE	AY1101W		
D802	8-719-975-84	DIODE	AY1101W		
D803	8-719-975-84	DIODE	AY1101W		
D804	8-719-975-84	DIODE	AY1101W		
D805	8-719-975-84	DIODE	AY1101W		
D806	8-719-975-84	DIODE	AY1101W		
D807	8-719-975-84	DIODE	AY1101W		
D808	8-719-975-84	DIODE	AY1101W		
D809	8-719-975-84	DIODE	AY1101W		
D810	8-719-975-84	DIODE	AY1101W		
D811	8-719-975-84	DIODE	AY1101W		
D812	8-719-975-84	DIODE	AY1101W		
D813	8-719-975-84	DIODE	AY1101W		
D814	8-719-975-84	DIODE	AY1101W		
D815	8-719-975-84	DIODE	AY1101W		
D816	8-719-975-84	DIODE	AY1101W		
D817	8-719-975-84	DIODE	AY1101W		
D818	8-719-975-84	DIODE	AY1101W		
D819	8-719-975-84	DIODE	AY1101W		
D820	8-719-975-84	DIODE	AY1101W		
D821	8-719-975-84	DIODE	AY1101W		
		< JUMPER RESISTOR >			
JR801	1-216-295-00	METAL CHIP	0	5% 1/10W	(XR-5152)
JR802	1-216-295-00	METAL CHIP	0	5% 1/10W	(XR-5150/5151)
JR803	1-216-296-00	METAL CHIP	0	5% 1/8W	(XR-5150/5151)
JR804	1-216-296-00	METAL CHIP	0	5% 1/8W	(XR-5152)
JR806	1-216-296-00	METAL CHIP	0	5% 1/8W	
JR807	1-216-295-00	METAL CHIP	0	5% 1/10W	(XR-5150/5151)
JR808	1-216-295-00	METAL CHIP	0	5% 1/10W	

Ref. No.	Part No.	Description				Remark
		< RESISTOR >				
R801	1-216-185-00	METAL GLAZE	300	5%	1/8W	
R802	1-216-185-00	METAL GLAZE	300	5%	1/8W	
R803	1-216-182-00	METAL GLAZE	220	5%	1/8W	
R804	1-216-182-00	METAL GLAZE	220	5%	1/8W	
R805	1-216-185-00	METAL GLAZE	300	5%	1/8W	
R806	1-216-185-00	METAL GLAZE	300	5%	1/8W	
R807	1-216-182-00	METAL GLAZE	220	5%	1/8W	
R808	1-216-182-00	METAL GLAZE	220	5%	1/8W	
R809	1-216-185-00	METAL GLAZE	300	5%	1/8W	
R810	1-216-185-00	METAL GLAZE	300	5%	1/8W	
R811	1-216-182-00	METAL GLAZE	220	5%	1/8W	
R812	1-216-182-00	METAL GLAZE	220	5%	1/8W	
		< SWITCH >				
S801	1-554-813-41	SWITCH, KEY BOARD (1/DOLBY)				
S802	1-554-813-41	SWITCH, KEY BOARD (2/METAL)				
S803	1-554-813-41	SWITCH, KEY BOARD (3/AMS)				
S804	1-554-813-41	SWITCH, KEY BOARD (4/ATA)				
S805	1-554-813-41	SWITCH, KEY BOARD (5)				
S806	1-554-813-41	SWITCH, KEY BOARD (6)				
S807	1-554-813-41	SWITCH, KEY BOARD (SEEK +)				
S808	1-554-813-41	SWITCH, KEY BOARD (SEEK -)				
S809	1-554-813-41	SWITCH, KEY BOARD (MANU +)				
S810	1-554-813-41	SWITCH, KEY BOARD (MANU -)				
S811	1-554-813-41	SWITCH, KEY BOARD (FM/MW/LW) (XR-5151)				
S811	1-554-813-41	SWITCH, KEY BOARD (FM/AM) (XR-5150/5152)				
S812	1-554-813-41	SWITCH, KEY BOARD (M. SCAN/A. MEM)				
S813	1-554-813-41	SWITCH, KEY BOARD (SENS) (XR-5152)				
S813	1-554-813-41	SWITCH, KEY BOARD (MONO) (XR-5150/5151)				
S814	1-554-813-41	SWITCH, KEY BOARD (SDK) (XR-5152)				
S814	1-554-813-41	SWITCH, KEY BOARD (LOCAL) (XR-5150/5151)				
**********						
※	A-3222-291-A	MAIN BOARD, COMPLETE				
		**********				
		< BATTERY >				
BT401	1-528-225-31	BATTERY, LITHIUM				
		< CAPACITOR >				
C1	1-163-063-00	CERAMIC CHIP	0.022uF	10%	50V	
C2	1-124-589-11	ELECT	47uF	20%	16V	
C3	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V	
C4	1-163-063-00	CERAMIC CHIP	0.022uF	10%	50V	
C5	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V	
C6	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V	

Ref. No.	Part No.	Description				Remark
C7	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V	
C8	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V	
C9	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V	
C10	1-126-163-11	ELECT	4.7uF	20%	50V	
C11	1-124-252-00	ELECT	0.33uF	20%	50V	
C12	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V	(XR-5150/5151)
C12	1-164-232-11	CERAMIC CHIP	0.01uF	10%	50V	(XR-5152)
C13	1-163-023-00	CERAMIC CHIP	0.015uF	5%	50V	
C14	1-163-023-00	CERAMIC CHIP	0.015uF	5%	50V	
C15	1-126-163-11	ELECT	4.7uF	20%	50V	
C16	1-124-464-11	ELECT	0.22uF	20%	50V	
C17	1-124-463-00	ELECT	0.1uF	20%	50V	
C18	1-124-464-11	ELECT	0.22uF	20%	50V	
C19	1-124-463-00	ELECT	0.1uF	20%	50V	
C20	1-137-054-11	FILM	390PF	5%	50V	
C21	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V	
C22	1-126-785-11	ELECT	47uF	20%	10V	
C23	1-163-059-00	CERAMIC CHIP	0.01uF	10%	50V	
C24	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	
C25	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V	
C27	1-163-157-00	CERAMIC CHIP	10PF	5%	50V	
C30	1-162-638-11	CERAMIC CHIP	1uF		16V	
C61	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V	
C62	1-163-063-00	CERAMIC CHIP	0.022uF	10%	50V	
C87	1-163-075-00	CERAMIC CHIP	0.047uF		50V	
C101	1-163-010-11	CERAMIC CHIP	0.0012uF	10%	50V	
C102	1-126-301-11	ELECT	1uF	20%	50V	
C103	1-124-584-00	ELECT	100uF	20%	10V	
C104	1-136-155-00	FILM	0.015uF	5%	50V	
C105	1-163-075-00	CERAMIC CHIP	0.047uF		50V	
C106	1-163-121-00	CERAMIC CHIP	150PF	5%	50V	
C131	1-126-301-11	ELECT	1uF	20%	50V	
C132	1-126-301-11	ELECT	1uF	20%	50V	
C133	1-131-587-11	TANTALUM	0.68uF	10%	35V	
C161	1-124-257-00	ELECT	2.2uF	20%	50V	
C162	1-163-245-11	CERAMIC CHIP	56PF	5%	50V	
C163	1-126-157-11	ELECT	10uF	20%	16V	
C164	1-124-257-00	ELECT	2.2uF	20%	50V	
C170	1-124-584-00	ELECT	100uF	20%	10V	
C171	1-163-245-11	CERAMIC CHIP	56PF	5%	50V	
C201	1-163-010-11	CERAMIC CHIP	0.0012uF	10%	50V	
C202	1-126-301-11	ELECT	1uF	20%	50V	
C203	1-124-584-00	ELECT	100uF	20%	10V	
C204	1-136-155-00	FILM	0.015uF	5%	50V	
C205	1-163-075-00	CERAMIC CHIP	0.047uF		50V	
C206	1-163-121-00	CERAMIC CHIP	150PF	5%	50V	
C231	1-126-301-11	ELECT	1uF	20%	50V	
C232	1-126-301-11	ELECT	1uF	20%	50V	

MAIN

Ref. No.	Part No.	Description				Remark
C233	1-131-587-11	TANTALUM	0.68uF	10%	35V	
C245	1-124-589-11	ELECT	47uF	20%	16V	
C261	1-124-257-00	ELECT	2.2uF	20%	50V	
C262	1-163-245-11	CERAMIC CHIP	56PF	5%	50V	
C263	1-126-157-11	ELECT	10uF	20%	16V	
C264	1-124-257-00	ELECT	2.2uF	20%	50V	
C271	1-163-245-11	CERAMIC CHIP	56PF	5%	50V	
C319	1-163-055-00	CERAMIC CHIP	0.0047uF	10%	50V	
C320	1-131-343-00	TANTALUM	0.22uF	10%	35V	
C321	1-124-252-00	ELECT	0.33uF	20%	50V	
C322	1-124-257-00	ELECT	2.2uF	20%	50V	
C323	1-124-234-00	ELECT	22uF	20%	16V	
C324	1-126-163-11	ELECT	4.7uF	20%	50V	
C325	1-163-075-00	CERAMIC CHIP	0.047uF		50V	
C331	1-126-157-11	ELECT	10uF	20%	16V	
C332	1-124-584-00	ELECT	100uF	20%	10V	
C333	1-124-584-00	ELECT	100uF	20%	10V	
C334	1-126-157-11	ELECT	10uF	20%	16V	
C345	1-124-589-11	ELECT	47uF	20%	10V	(XR-5150/5151)
C345	1-126-157-11	ELECT	10uF	20%	16V	(XR-5152)
C361	1-124-584-00	ELECT	100uF	20%	10V	
C362	1-163-007-11	CERAMIC CHIP	680PF	10%	50V	
C363	1-124-584-00	ELECT	100uF	20%	10V	
C391	1-126-163-11	ELECT	4.7uF	20%	50V	
C399	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C401	1-124-589-11	ELECT	47uF	20%	16V	
C402	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V	
C403	1-163-059-00	CERAMIC CHIP	0.01uF	10%	50V	
C404	1-124-471-00	ELECT	1000uF	20%	6.3V	
C405	1-124-584-00	ELECT	100uF	20%	10V	
C406	1-124-584-00	ELECT	100uF	20%	10V	
C407	1-124-229-00	ELECT	33uF	20%	10V	
C408	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V	
C409	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V	
C410	1-126-937-11	ELECT	4700uF	20%	16V	
C411	1-126-935-11	ELECT	470uF	20%	16V	
C412	1-126-157-11	ELECT	10uF	20%	16V	
C421	1-124-589-11	ELECT	47uF	20%	16V	
C431	1-124-589-11	ELECT	47uF	20%	16V	
C432	1-124-589-11	ELECT	47uF	20%	16V	
C451	1-126-301-11	ELECT	1uF	20%	50V	
C452	1-135-091-00	TANTALUM CHIP	1uF	20%	16V	
C501	1-124-229-00	ELECT	33uF	20%	10V	(XR-5152)
C502	1-124-250-00	ELECT	0.15uF	20%	50V	(XR-5152)
C503	1-136-158-00	FILM	0.027uF	5%	50V	(XR-5152)
C504	1-136-161-00	FILM	0.047uF	5%	50V	(XR-5152)
C505	1-136-164-00	FILM	0.082uF	5%	50V	(XR-5152)
C506	1-130-477-00	MYLAR	0.0033uF	5%	50V	(XR-5152)
C507	1-126-163-11	ELECT	4.7uF	20%	50V	(XR-5152)

Ref. No.	Part No.	Description				Remark
C508	1-136-175-00	FILM	0.068uF	5%	50V	(XR-5152)
C509	1-136-175-00	FILM	0.068uF	5%	50V	(XR-5152)
C510	1-163-175-00	CERAMIC CHIP	56PF	5%	50V	(XR-5152)
C511	1-124-250-00	ELECT	0.15uF	20%	50V	(XR-5152)
C512	1-124-463-00	ELECT	0.1uF	20%	50V	(XR-5152)
C551	1-124-229-00	ELECT	33uF	20%	10V	(XR-5152)
C601	1-126-162-11	ELECT	3.3uF	20%	50V	
C602	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V	
C602	1-163-213-00	CERAMIC CHIP	0.0022uF	5%	50V	
C603	1-124-229-00	ELECT	33uF	20%	10V	
C604	1-136-170-00	FILM	0.27uF	5%	50V	
C605	1-136-170-00	FILM	0.27uF	5%	50V	
C621	1-126-162-11	ELECT	3.3uF	20%	50V	
C623	1-124-229-00	ELECT	33uF	20%	10V	
C624	1-136-170-00	FILM	0.27uF	5%	50V	
C625	1-136-170-00	FILM	0.27uF	5%	50V	
C651	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C652	1-126-163-11	ELECT	4.7uF	20%	50V	
C653	1-126-923-11	ELECT	220uF	20%	10V	
C701	1-163-164-00	CERAMIC CHIP	20PF	5%	50V	
C702	1-163-165-00	CERAMIC CHIP	22PF	5%	50V	
C703	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V	
C723	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V	
C724	1-164-232-11	CERAMIC CHIP	0.01uF	50V		(XR-5152)
C725	1-164-232-11	CERAMIC CHIP	0.01uF	50V		(XR-5152)
C726	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C730	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C751	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V	
C752	1-126-163-11	ELECT	4.7uF	20%	50V	
C753	1-126-163-11	ELECT	4.7uF	20%	50V	
C754	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V	

< CONNECTOR >

CNP1	*	1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P
CNP2	*	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P
CNP3	*	1-564-509-11	PLUG, CONNECTOR 6P
CNP5	*	1-564-710-11	PIN, CONNECTOR (SMALL TYPE) 8P
CNP6	*	1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P
CNP7	*	1-564-508-11	PLUG, CONNECTOR 5P
CNP10	*	1-564-721-21	PIN, CONNECTOR (SMALL TYPE) 5P
CNP31	*	1-564-719-31	PIN, CONNECTOR (SMALL TYPE) 3P
CNP32	*	1-564-719-31	PIN, CONNECTOR (SMALL TYPE) 3P
CNS701	*	1-573-073-11	SOCKET, CONNECTOR 32P

< DIODE >

D1		8-719-987-06	DIODE WG713A
D2		8-719-987-06	DIODE WG713A
D3		8-719-987-06	DIODE WG713A
D4		8-719-987-06	DIODE WG713A
D5		8-719-987-06	DIODE WG713A

MAIN

Ref. No.	Part No.	Description	Remark
D6	8-719-987-06	DIODE WG713A	
D7	8-719-987-06	DIODE WG713A	
D341	8-719-110-08	DIODE RD8.2ES-B2 (XR-5152)	
D361	8-719-110-08	DIODE RD8.2ES-B2	
D401	8-719-987-06	DIODE WG713A	
D402	8-719-987-06	DIODE WG713A	
D403	8-719-109-89	DIODE RD5.6ES-B2	
D405	8-719-921-75	DIODE MTZN-10B	
D406	8-719-110-13	DIODE RD9.1ES-B2	
D407	8-719-987-06	DIODE WG713A	
D408	8-719-987-06	DIODE WG713A	
D409	8-719-109-85	DIODE RD5.1ES-B2	
D410	8-719-987-06	DIODE WG713A	
D412	8-719-974-59	DIODE 1SR139-100	
D413	8-719-945-59	DIODE DSA3A4	
D415	8-719-987-06	DIODE WG713A	
D416	8-719-987-06	DIODE WG713A	
D421	8-719-110-13	DIODE RD9.1ES-B2	
D422	8-719-987-06	DIODE WG713A	
D423	8-719-987-06	DIODE WG713A	
D424	8-719-987-06	DIODE WG713A	
D431	8-719-987-06	DIODE WG713A	
D451	8-719-974-59	DIODE 1SR139-100	
D501	8-719-987-06	DIODE WG713A (XR-5152)	
D502	8-719-987-06	DIODE WG713A (XR-5152)	
D503	8-719-987-06	DIODE WG713A (XR-5152)	
D571	8-719-987-06	DIODE WG713A (XR-5152)	
D572	8-719-987-06	DIODE WG713A (XR-5152)	
D573	8-719-987-06	DIODE WG713A (XR-5152)	
D574	8-719-987-06	DIODE WG713A (XR-5152)	
D652	8-719-109-85	DIODE RD5.1ES-B2	
D701	8-719-109-85	DIODE RD5.1ES-B2	
D702	8-719-987-06	DIODE WG713A	
D704	8-719-987-06	DIODE WG713A (XR-5151)	
D707	8-719-987-06	DIODE WG713A (XR-5150/5151)	
D708	8-719-987-06	DIODE WG713A	
D711	8-719-987-06	DIODE WG713A	
D712	8-719-987-06	DIODE WG713A	
D713	8-719-987-06	DIODE WG713A	
D714	8-719-987-06	DIODE WG713A	
D715	8-719-987-06	DIODE WG713A	
D716	8-719-987-06	DIODE WG713A	
D717	8-719-987-06	DIODE WG713A	
D718	8-719-987-06	DIODE WG713A	
D719	8-719-987-06	DIODE WG713A	
D721	8-719-987-06	DIODE WG713A	
D722	8-719-987-06	DIODE WG713A	
D723	8-719-987-06	DIODE WG713A	
D724	8-719-987-06	DIODE WG713A (XR-5152)	
D725	8-719-987-06	DIODE WG713A (XR-5152)	
D726	8-719-987-06	DIODE WG713A	
		< TUNER UNIT >	
FE1	1-465-405-11	TUNER UNIT (FM/AM) (XR-5150/5152)	
FE1	1-465-537-11	TUNER UNIT (FM/MW/LW) (XR-5151)	
		< IC >	
IC1	8-759-421-10	IC AN7463S	
IC101	8-759-105-60	IC uPC1228HA	
IC301	8-759-800-71	IC LA2010	
IC331	8-752-050-13	IC CXA1101M	
IC361	8-759-106-02	IC uPC4570-G2	
IC501	8-759-998-24	IC TDA1579T (XR-5152)	
IC601	8-759-242-83	IC TA8221H	
IC701	8-759-154-11	IC uPD1723GF-558-3BE	
		< JUMPER RESISTOR >	
JR1	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR2	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR3	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR4	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR5	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR7	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR9	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR10	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR11	1-249-366-11	CARBON MELF 0 5% 1/5W	
JR13	1-249-366-11	CARBON MELF 0 5% 1/5W	
JR14	1-249-366-11	CARBON MELF 0 5% 1/5W	
JR15	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR16	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR17	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR19	1-216-296-00	METAL CHIP 0 5% 1/8W (XR-5152)	
JR20	1-216-296-00	METAL CHIP 0 5% 1/8W (XR-5152)	
JR21	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR22	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR23	1-216-296-00	METAL CHIP 0 5% 1/8W (XR-5152)	
JR24	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR25	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR31	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR32	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR33	1-216-295-00	METAL CHIP 0 5% 1/10W (XR-5151)	
JR34	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR35	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR36	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR37	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR39	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR40	1-216-295-00	METAL CHIP 0 5% 1/10W	

MAIN

Ref.No.	Part No.	Description	Remark
JR41	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR71	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR72	1-216-295-00	METAL CHIP 0 5% 1/10W	(XR-5150/5151)
JR73	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR199	1-216-295-00	METAL CHIP 0 5% 1/10W	
		< COIL >	
L1	1-410-184-51	INDUCTOR CHIP 0.22uH	
L2	1-410-513-11	INDUCTOR 22uH	
L501	1-424-036-11	COIL (FILTER)	(XR-5152)
		< TRANSISTOR >	
Q1	8-729-903-30	TRANSISTOR DTC144TK	
Q2	8-729-216-22	TRANSISTOR 2SA1162	
Q101	8-729-920-08	TRANSISTOR DTC124TK	
Q161	8-729-102-14	TRANSISTOR 2SD1021	
Q201	8-729-920-08	TRANSISTOR DTC124TK	
Q261	8-729-102-14	TRANSISTOR 2SD1021	
Q301	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q302	8-729-920-08	TRANSISTOR DTC124TK	
Q303	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q331	8-729-900-52	TRANSISTOR DTC114YK	
Q345	8-729-903-30	TRANSISTOR DTC144TK	(XR-5152)
Q345	8-729-920-08	TRANSISTOR DTC124TK	(XR-5150/5151)
Q362	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q363	8-729-920-08	TRANSISTOR DTC124TK	
Q401	8-729-102-14	TRANSISTOR 2SD1021	
Q402	8-729-102-14	TRANSISTOR 2SD1021	
Q403	8-729-807-12	TRANSISTOR 2SD1802-S	
Q404	8-729-205-02	TRANSISTOR 2SA1150	
Q405	8-729-920-68	TRANSISTOR 2SA933S-QR	
Q406	8-729-926-92	TRANSISTOR DTC124TS	
Q408	8-729-920-68	TRANSISTOR 2SA933S-QR	
Q409	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q421	8-729-926-92	TRANSISTOR DTC124TS	
Q451	8-729-900-61	TRANSISTOR DTA114ES	
Q452	8-729-905-52	TRANSISTOR 2SD1055	
Q453	8-729-920-08	TRANSISTOR DTC124TK	
Q551	8-729-205-95	TRANSISTOR 2SA1428-Y	(XR-5152)
Q552	8-729-119-78	TRANSISTOR 2SC2785-HFE	(XR-5152)
Q651	8-729-216-22	TRANSISTOR 2SA1162	
Q721	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q722	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q723	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q724	8-729-120-28	TRANSISTOR 2SC1623-L5L6	(XR-5152)
Q725	8-729-120-28	TRANSISTOR 2SC1623-L5L6	(XR-5152)
Q726	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q751	8-729-924-99	TRANSISTOR 2SC3722K-E	
Q752	8-729-924-99	TRANSISTOR 2SC3722K-E	

Ref.No.	Part No.	Description	Remark
		< RESISTOR >	
R1	1-216-216-00	METAL GLAZE 5.6K 5% 1/8W	
R2	1-216-150-00	METAL GLAZE 10 5% 1/8W	
R4	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R5	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R6	1-216-202-00	METAL GLAZE 1.5K 5% 1/8W	
R7	1-216-105-00	METAL CHIP 220K 5% 1/10W	
R8	1-216-070-00	METAL CHIP 7.5K 5% 1/10W	
R9	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R10	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R11	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R12	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R13	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R14	1-216-091-00	METAL CHIP 56K 5% 1/10W	
R15	1-216-099-00	METAL CHIP 120K 5% 1/10W	
R16	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R17	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R18	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R19	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R20	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R21	1-216-243-00	METAL CHIP 75K 5% 1/8W	(XR5152)
R21	1-216-244-00	METAL CHIP 82K 5% 1/8W	(XR5150)
R21	1-216-246-00	METAL CHIP 100K 5% 1/8W	(XR5151)
R22	1-216-243-00	METAL CHIP 75K 5% 1/8W	(XR5152)
R22	1-216-244-00	METAL CHIP 82K 5% 1/8W	(XR5150)
R22	1-216-246-00	METAL CHIP 100K 5% 1/8W	(XR5151)
R23	1-216-242-00	METAL CHIP 68K 5% 1/8W	(XR5151)
R23	1-216-246-00	METAL CHIP 100K 5% 1/8W	(XR5150/5152)
R24	1-216-001-00	METAL CHIP 10 5% 1/10W	
R25	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R26	1-216-174-00	METAL GLAZE 100 5% 1/8W	
R27	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R61	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R100	1-216-091-00	METAL CHIP 56K 5% 1/10W	
R101	1-216-172-00	METAL CHIP 82 5% 1/8W	
R102	1-216-105-00	METAL CHIP 220K 5% 1/10W	
R103	1-216-072-00	METAL CHIP 9.1K 5% 1/10W	
R104	1-216-071-00	METAL CHIP 8.2K 5% 1/10W	
R105	1-216-051-00	METAL CHIP 1.2K 5% 1/10W	
R106	1-216-202-00	METAL GLAZE 1.5K 5% 1/8W	
R107	1-216-258-00	METAL GLAZE 330K 5% 1/8W	
R130	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R131	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R132	1-216-230-00	METAL GLAZE 22K 5% 1/8W	
R161	1-216-246-00	METAL GLAZE 100K 5% 1/8W	
R163	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R164	1-216-055-00	METAL CHIP 1.8K 5% 1/10W	
R165	1-216-049-00	METAL CHIP 1K 5% 1/10W	

MAIN

Ref. No.	Part No.	Description				Remark
R166	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R170	1-216-158-00	METAL GLAZE	22	5%	1/8W	
R171	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R172	1-216-230-00	METAL GLAZE	22K	5%	1/8W	
R200	1-216-091-00	METAL CHIP	56K	5%	1/10W	
R201	1-216-172-00	METAL CHIP	82	5%	1/8W	
R202	1-216-105-00	METAL CHIP	220K	5%	1/10W	
R203	1-216-072-00	METAL CHIP	9.1K	5%	1/10W	
R204	1-216-220-00	METAL GLAZE	8.2K	5%	1/8W	
R205	1-216-200-00	METAL GLAZE	1.2K	5%	1/8W	
R206	1-216-202-00	METAL GLAZE	1.5K	5%	1/8W	
R207	1-216-258-00	METAL GLAZE	330K	5%	1/8W	
R230	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R231	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R232	1-216-230-00	METAL GLAZE	22K	5%	1/8W	
R245	1-216-063-00	METAL CHIP	3.9K	5%	1/10W	
R246	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R247	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R261	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R263	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R264	1-216-055-00	METAL CHIP	1.8K	5%	1/10W	
R265	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R266	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R271	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R302	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R303	1-216-093-00	METAL CHIP	68K	5%	1/10W	
R310	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R311	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R312	1-216-063-00	METAL CHIP	3.9K	5%	1/10W	
R325	1-216-219-00	METAL GLAZE	7.5K	5%	1/8W	
R326	1-216-110-00	METAL GLAZE	360K	5%	1/10W	
R327	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R328	1-216-037-00	METAL CHIP	330	5%	1/10W	
R329	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W	
R330	1-216-238-00	METAL GLAZE	47K	5%	1/8W	
R331	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R332	1-216-150-00	METAL GLAZE	10	5%	1/8W	
R333	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R334	1-216-222-00	METAL GLAZE	10K	5%	1/8W	
R335	1-216-237-00	METAL GLAZE	43K	5%	1/8W	
R344	1-216-295-00	METAL CHIP	0	5%	1/10W	
R345	1-216-073-00	METAL CHIP	10K	5%	1/10W	(XR-5152)
R345	1-216-089-00	METAL CHIP	47K	5%	1/10W	(XR-5150/5151)
R346	1-216-085-00	METAL CHIP	33K	5%	1/10W	(XR-5152)
R346	1-216-089-00	METAL CHIP	47K	5%	1/10W	(XR-5150/5151)
R347	1-216-198-00	METAL CHIP	1K	5%	1/8W	
R361	1-216-013-00	METAL CHIP	33	5%	1/10W	
R362	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R363	1-216-222-00	METAL GLAZE	10K	5%	1/8W	
R391	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R401	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R402	1-216-188-00	METAL GLAZE	390	5%	1/8W	
R403	1-216-188-00	METAL GLAZE	390	5%	1/8W	
R404	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R405	1-216-198-00	METAL CHIP	1K	5%	1/8W	
R406	1-216-230-00	METAL GLAZE	22K	5%	1/8W	
R407	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R408	1-216-069-00	METAL CHIP	6.8K	5%	1/10W	
R409	1-216-079-00	METAL CHIP	18K	5%	1/10W	
R410	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R411	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R412	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R413	1-216-077-00	METAL CHIP	15K	5%	1/10W	
R414	1-216-079-00	METAL CHIP	18K	5%	1/10W	
R415	1-216-029-00	METAL CHIP	150	5%	1/10W	
R416	1-216-001-00	METAL CHIP	10	5%	1/10W	
R421	1-216-198-00	METAL CHIP	1K	5%	1/8W	
R422	1-216-083-00	METAL CHIP	27K	5%	1/10W	
R423	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R431	1-216-142-00	METAL GLAZE	4.7	5%	1/8W	
R432	1-216-142-00	METAL GLAZE	4.7	5%	1/8W	
R451	1-216-025-00	METAL CHIP	100	5%	1/10W	
R452	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R453	1-216-105-00	METAL CHIP	220K	5%	1/10W	
R501	1-216-097-00	METAL CHIP	100K	5%	1/10W	(XR-5152)
R502	1-216-085-00	METAL CHIP	33K	5%	1/10W	(XR-5152)
R503	1-216-150-00	METAL GLAZE	10	5%	1/8W	(XR-5152)
R504	1-216-117-00	METAL CHIP	680K	5%	1/10W	(XR-5152)
R505	1-216-097-00	METAL CHIP	100K	5%	1/10W	(XR-5152)
R506	1-216-083-00	METAL CHIP	27K	5%	1/10W	(XR-5152)
R507	1-216-097-00	METAL CHIP	100K	5%	1/10W	(XR-5152)
R508	1-216-117-00	METAL CHIP	680K	5%	1/10W	(XR-5152)
R509	1-216-041-00	METAL CHIP	470	5%	1/10W	(XR-5152)
R510	1-216-105-00	METAL CHIP	220K	5%	1/10W	(XR-5152)
R511	1-216-089-00	METAL CHIP	47K	5%	1/10W	(XR-5152)
R512	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	(XR-5152)
R513	1-216-242-00	METAL GLAZE	68K	5%	1/8W	(XR-5152)
R551	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	(XR-5152)
R551	1-216-295-00	METAL CHIP	0	5%	1/10W	(XR-5150/5151)
R552	1-249-418-11	CARBON	1.2K	5%	1/4W	(XR-5152)
R553	1-216-081-00	METAL CHIP	22K	5%	1/10W	(XR-5152)
R574	1-216-226-00	METAL GLAZE	15K	5%	1/8W	(XR-5152)
R601	1-216-220-00	METAL GLAZE	8.2K	5%	1/8W	
R602	1-216-055-00	METAL CHIP	1.8K	5%	1/10W	
R603	1-216-041-00	METAL CHIP	470	5%	1/10W	
R604	1-249-385-11	CARBON	2.2	5%	1/6W	
R605	1-249-385-11	CARBON	2.2	5%	1/6W	

MAIN VOL

Ref.No.	Part No.	Description				Remark
R621	1-216-220-00	METAL GLAZE	8.2K	5%	1/8W	
R622	1-216-055-00	METAL CHIP	1.8K	5%	1/10W	
R623	1-216-041-00	METAL CHIP	470	5%	1/10W	
R624	1-249-385-11	CARBON	2.2	5%	1/6W	
R625	1-249-385-11	CARBON	2.2	5%	1/6W	
R650	1-216-051-00	METAL CHIP	1.2K	5%	1/10W	
R651	1-216-039-00	METAL CHIP	390	5%	1/10W	
R652	1-216-202-00	METAL GLAZE	1.5K	5%	1/8W	
R653	1-216-091-00	METAL CHIP	56K	5%	1/10W	
R654	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R701	1-216-222-00	METAL GLAZE	10K	5%	1/8W	
R702	1-216-236-00	METAL GLAZE	39K	5%	1/8W	
R703	1-216-238-00	METAL GLAZE	47K	5%	1/8W	
R721	1-216-254-00	METAL GLAZE	220K	5%	1/8W	
R722	1-216-254-00	METAL GLAZE	220K	5%	1/8W	
R723	1-216-254-00	METAL GLAZE	220K	5%	1/8W	
R724	1-216-254-00	METAL GLAZE	220K	5%	1/8W	(XR-5152)
R725	1-216-254-00	METAL GLAZE	220K	5%	1/8W	(XR-5152)
R726	1-216-105-00	METAL CHIP	220K	5%	1/10W	
R728	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R751	1-216-053-00	METAL CHIP	1.5K	5%	1/10W	
R752	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R753	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R754	1-216-121-00	METAL CHIP	1M	5%	1/10W	(XR-5150/5152)
R755	1-216-053-00	METAL CHIP	1.5K	5%	1/10W	(XR-5150/5152)
R755	1-216-295-00	METAL CHIP	0	5%	1/10W	(XR-5151)
R756	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	(XR-5150/5152)
R757	1-216-051-00	METAL CHIP	1.2K	5%	1/10W	(XR-5151)
R757	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	(XR-5150/5152)
R771	1-216-170-00	METAL GLAZE	68	5%	1/8W	
R772	1-216-170-00	METAL GLAZE	68	5%	1/8W	
R773	1-216-170-00	METAL GLAZE	68	5%	1/8W	
R774	1-216-170-00	METAL GLAZE	68	5%	1/8W	
R775	1-216-170-00	METAL GLAZE	68	5%	1/8W	
R776	1-216-170-00	METAL GLAZE	68	5%	1/8W	
R777	1-216-170-00	METAL GLAZE	68	5%	1/8W	
R778	1-216-170-00	METAL GLAZE	68	5%	1/8W	

< VARIABLE RESISTOR >

RV1	1-238-599-11	RES, ADJ, CARBON 4.7K
RV2	1-238-600-11	RES, ADJ, CARBON 10K
RV3	1-238-599-11	RES, ADJ, CARBON 4.7K
RV101	1-238-602-11	RES, ADJ, CARBON 47K
RV201	1-238-602-11	RES, ADJ, CARBON 47K
RV501	1-238-595-11	RES, ADJ, CARBON 220 (XR-5152)

< THERMISTOR >

TH401	1-809-148-11	THERMISTOR, POSITIVE

Ref.No.	Part No.	Description	Remark

< VIBRATOR >

X701	1-567-713-11	VIBRATOR, CRYSTAL

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※ A-3273-563-A VOL BOARD, COMPLETE

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< CAPACITOR >

C141	1-126-163-11	ELECT	4.7uF	20%	50V
C151	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C152	1-163-018-00	CERAMIC CHIP	0.0056uF	5%	50V
C153	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C154	1-131-343-00	TANTALUM	0.22uF	10%	35V
C155	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C156	1-126-162-11	ELECT	3.3uF	20%	50V
C157	1-163-011-11	CERAMIC CHIP	0.0015uF	10%	50V
C241	1-126-163-11	ELECT	4.7uF	20%	50V
C251	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C252	1-163-018-00	CERAMIC CHIP	0.0056uF	5%	50V
C253	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C254	1-131-343-00	TANTALUM	0.22uF	10%	35V
C255	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C256	1-126-162-11	ELECT	3.3uF	20%	50V
C257	1-163-011-11	CERAMIC CHIP	0.0015uF	10%	50V
C570	1-126-514-11	ELECT	22uF	20% 16V	(XR-5152)
C727	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C755	1-126-786-11	ELECT	47uF	20% 16V	(XR-5152)

< CONNECTOR >

CNP8	* 1-564-509-11	PLUG, CONNECTOR 6P	
CNP15	* 1-564-710-11	PIN, CONNECTOR (SMALL TYPE) 8P	
CNP16	* 1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P	

< DIODE >

D755	8-719-987-06	DIODE WG713A (XR-5152)

< JUMPER RESISTOR >

JR351	1-216-296-00	METAL CHIP	0	5%	1/8W
JR352	1-216-296-00	METAL CHIP	0	5%	1/8W
JR353	1-216-296-00	METAL CHIP	0	5%	1/8W
JR354	1-216-296-00	METAL CHIP	0	5%	1/8W
JR356	1-216-295-00	METAL CHIP	0	5%	1/10W
JR357	1-216-295-00	METAL CHIP	0	5%	1/10W

< TRANSISTOR >

Q151	8-729-102-14	TRANSISTOR 2SD1021
Q152	8-729-144-85	TRANSISTOR 2SK1133 (XR-5152)

VOL

Ref. No.	Part No.	Description	Remark
Q152	8-729-920-08	TRANSISTOR DTC124TK (XR-5150/5151)	
Q153	8-729-144-85	TRANSISTOR 2SK1133 (XR-5152)	
Q153	8-729-920-08	TRANSISTOR DTC124TK (XR-5150/5151)	
Q251	8-729-102-14	TRANSISTOR 2SD1021	
Q252	8-729-144-85	TRANSISTOR 2SK1133 (XR-5152)	
Q253	8-729-144-85	TRANSISTOR 2SK1133 (XR-5152)	
Q570	8-729-102-14	TRANSISTOR 2SD1021 (XR-5152)	
Q571	8-729-119-78	TRANSISTOR 2SC2785-HFE (XR-5152)	
		< RESISTOR >	
R141	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R151	1-216-063-00	METAL CHIP 3.9K 5% 1/10W	
R152	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R154	1-216-055-00	METAL CHIP 1.8K 5% 1/10W	
R155	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R156	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R157	1-216-091-00	METAL CHIP 56K 5% 1/10W	
R158	1-216-067-00	METAL CHIP 5.6K 5% 1/10W	
R159	1-216-089-00	METAL CHIP 47K 5% 1/10W (XR-5152)	
R159	1-216-295-00	METAL CHIP 0 5% 1/10W (XR-5150/5151)	
R241	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R251	1-216-063-00	METAL CHIP 3.9K 5% 1/10W	
R252	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R254	1-216-055-00	METAL CHIP 1.8K 5% 1/10W	
R255	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R256	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R257	1-216-091-00	METAL CHIP 56K 5% 1/10W	
R258	1-216-067-00	METAL CHIP 5.6K 5% 1/10W	
R259	1-216-089-00	METAL CHIP 47K 5% 1/10W (XR-5152)	
R259	1-216-295-00	METAL CHIP 0 5% 1/10W (XR-5150/5151)	
R571	1-216-089-00	METAL CHIP 47K 5% 1/10W (XR-5152)	
R572	1-216-063-00	METAL CHIP 3.9K 5% 1/10W (XR-5152)	
R573	1-216-266-00	METAL GLAZE 680K 5% 1/8W (XR-5152)	
R727	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R729	1-216-097-00	METAL CHIP 100K 5% 1/10W	
		< VARIABLE RESISTOR >	
RV351	1-241-437-11	RES, VAR, CARBON 50KX4	
RV352	1-241-436-11	RES, VAR, CERMET CARBON	
RV570	1-241-039-11	RES, ADJ, CARBON 10K (XR-5152)	

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Ref. No.	Part No.	Description	Remark
		MISCELLANEOUS	
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23	1-590-581-11	CORD (WITH CONNECTOR)	
F1	1-532-452-XX	FUSE, GLASS TUBE (1A)	
F2	1-576-075-11	FUSE, GLASS TUBE (8A)	
HP901	1-543-829-11	HEAD, CERAMIC (PLAYBACK)	
IC601	8-759-242-83	IC TA8221H	
LCD1	1-809-289-11	DISPLAY PANEL, LIQUID CRYSTAL	
PL901	1-518-682-11	LAMP, PILOT	
PL902	1-518-682-11	LAMP, PILOT	
S902	1-572-712-11	SWITCH, SLIDE	

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ACCESSORIES & PACKING MATERIALS

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	1-421-369-00	COIL, CHOKE
	3-336-617-01	BAG, PROTECTION
*	3-367-350-01	LABEL (DK VOLUME ADJUSTMENT) (XR-5152)
*	3-367-623-11	CUSHION (UPPER) (L&R)
*	3-367-630-11	CUSHION (LOWER)
*	3-367-621-01	INDIVIDUAL CARTON (XR-5150)
*	3-367-624-01	INDIVIDUAL CARTON (XR-5151)
*	3-367-626-01	INDIVIDUAL CARTON (XR-5152)
	3-753-042-11	MANUAL, INSTRUCTION (XR-5150) (ENGLISH, FRENCH, SPANISH)
	3-753-042-41	MANUAL, INSTRUCTION (XR-5150) (DUTCH, SWEDISH, ITALIAN, PORTUGUESE)
	3-753-042-61	MANUAL, INSTRUCTION (XR-5151) (ENGLISH, FRENCH, DUTCH)
	3-753-042-71	MANUAL, INSTRUCTION (XR-5152) (ENGLISH, FRENCH, GERMAN, ITALIAN)
	3-753-043-11	MANUAL, INSTALLATION, CONNECTION (ENGLISH, FRENCH, SPANISH) (XR-5150)
	3-753-043-41	MANUAL, INSTALLATION, CONNECTION (XR-5150) (DUTCH, SWEDISH, ITALIAN, PORTUGUESE)
	3-753-043-61	MANUAL, INSTALLATION, CONNECTION (ENGLISH, FRENCH, DUTCH) (XR-5151)
	3-753-043-71	MANUAL, INSTALLATION, CONNECTION (XR-5152) (ENGLISH, FRENCH, GERMAN, ITALIAN)
*	4-922-359-01	SHEET (L)
	9-911-815-01	CUSHION, MICROPHONE

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Ref. No.	Part No.	Description	Remark
		HARDWARE LIST	
		**************	
#1	7-624-102-04	STOP RING 1.5, TYPE -E	
#2	7-624-104-04	STOP RING 2.0, TYPE -E	
#3	7-627-554-07	PRECISION SCREW +P 2X2.2 TYPE 3	
#4	7-627-553-37	PRECISION SCREW +P 2X3 TYPE 3	
#5	7-627-554-28	PRECISION SCREW +P 2X5 TYPE 3	
#6	7-628-253-10	SCREW +PS 2X5	
#7	7-628-253-30	SCREW +PS 2X8	
#8	7-628-253-90	SCREW +PS 2.6X4	
#9	7-621-770-67	SCREW +BVTT 2.6X6 (S)	
#10	7-621-772-18	SCREW +B 2X4	
#11	7-621-775-00	SCREW +B 2.6X3	
#12	7-627-553-38	SCREW, PRECISION +P 2X3	
#13	7-682-545-09	SCREW +B 3X4	
#14	7-682-550-09	SCREW +B 3X12	
#15	7-685-104-19	SCREW +P 2X6 TYPE2 NON-SLIT	
#16	7-682-548-04	SCREW +P 3X8	
#17	7-621-770-XX	SCREW +BVTT 2.6X8 (S)	
**********			
		MOUNTING HARDWARE	
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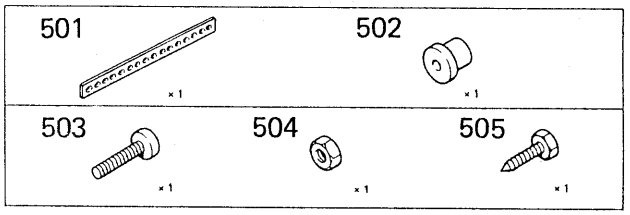

501		3-358-694-01	SUPPORT (ND), FITTING
502	*	3-358-697-01	BUSHING
503		7-682-583-04	SCREW +P 5X40
504		7-684-025-04	N 5, TYPE 2
505		3-302-126-01	SCREW, TAPPING (DIA. 5X20)

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9-956-630-11

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